
An Investigation of a Stoppable Helicopter Rotor With Circulation Control

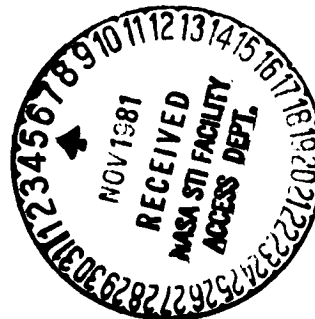
John D. Ballard, John L. McCloud, III,
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John D. Ballard
John L. McCloud, III
T. J. Forsyth, NASA Ames Research Center, Moffett Field, California



National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, California 94035

AN INVESTIGATION OF A STOPPABLE HELICOPTER ROTOR WITH CIRCULATION CONTROL

John D. Ballard, John L. McCloud, III, and T. J. Forsyth

Ames Research Center

SUMMARY

A stoppable helicopter rotor with circulation control was investigated in the Ames 40- by 80-Foot Wind Tunnel. The model was tested as a rotating wing, a fixed wing, and during transition start/stop sequences. The objectives were to determine the capability of the model's control system to maintain pitch- and roll-moment balance during the start/stop sequence, to assess the ability of the blades to withstand the start/stop loads, to determine the adequacy of the control system to maintain balance in the helicopter mode, and to assess the control system capabilities in the fixed-wing mode. This report presents time-history data of several start/stop sequences of the X-wing rotor, and the steady-state data relating to the model as both a rotor and as a fixed-wing aircraft. In addition, stability data are presented which were acquired during open-loop and closed-loop tests of the hub moment feedback control system.

INTRODUCTION

The maximum forward speed and lifting capability of a helicopter in forward flight can be limited by retreating blade stall. Traditionally, the solution to this problem has been to add more blade area, to employ a separate wing, or to use a second contrarotating rotor. Without exception these approaches have not been completely successful and additional limiting problems have ensued. To avoid this problem, the X-Wing aircraft was developed to stop the rotor in a preset orientation and to allow the aircraft to achieve higher forward flight speeds, with its weight supported by the stopped rotor and with propulsion supplied by other suitable means. This requires a rotor considerably stiffer than those employed by conventional helicopters, with airfoils efficient in both forward and reverse flow. The yaw angle was maintained at 0° throughout the test program.

TEST MODULE

The test module incorporated a faired body whose purpose was to simulate a fuselage, to provide a support platform for and to house the rotor drive systems and the high pressure air system. The rotor drive system consisted of a 100 hp variable speed motor and transmission. The module was designed to have two motor-compressor units housed in the faired body; however, for the tests reported herein, the high-pressure air system was located under the tunnel test-section flooring, and ducting was provided alongside one of the two lateral support struts (fig. 1). An overflow dump valve, downstream, with

respect to the circulation control air path, of the two motor-compressor units, was used as a safety and airflow control valve. An airflow measuring venturi meter was downstream of the dump valve, and the air was then ducted up to a plenum chamber located just below the hub.

The hub contained pneumatic valves to permit control of the airflow to the blades in a collective manner and in a basically cyclic 1P (once per revolution) manner. Additional capability of 2P blowing as well as means for leading- and/or trailing-edge blowing was provided. The blade connection to the hub also allowed for mechanical collective pitch change.

ROTOR BLADES

Figure 2 shows a typical X-Wing blade cross section. Airflow was possible from both leading edges and trailing edges along the entire blade span. The trailing-edge jet nozzle continued around the blade tip to approximately the midchord point. The nozzle slot width was adjustable along the leading and trailing edges. Airflow out the nozzles provided the circulation control. As the airflow increased by increasing the air pressure in the duct, the jet was deflected by the Coanda effect to increase the blade lift without changing the geometric angle-of-attack of the section.

The blades were attached to the hub without articulation except for collective pitch changes. No mechanical mechanism for cyclic pitch was provided. The blade and hub connection was quite stiff resulting in a flap frequency of 1.4P at the design rpm. Figure 3 presents the blade/hub bending frequencies.

Instrumentation

The pitch moment, roll moment, and thrust data were obtained from four load cells which were attached between the rotor hub and the supporting structure. The load cells, located adjacent to the plenum chamber, were subject to a highly variable temperature environment. In addition to the airflow meter, the module contained many other sensors for temperatures, positions, and strains. In the interest of brevity, these and the rest of the instrumentation associated with the testing of the X-Wing rotor are identified by their titles as listed in the section entitled "Data Reduction and Presentation."

Hub Moment Feedback Control System

The control system is illustrated in figure 4 by a block diagram. The load cells contained within the test module were used as pitch and roll sensors. Control stability measurements were collected during both fixed- and rotary-wing modes, and open-loop Bode plots were obtained for the control loops associated with the moments about the longitudinal and lateral axis. A complete discussion of both control measurement and analysis is contained in reference 2.

The X-Wing model used a circulation-controlled airfoil on very stiff non-articulated blades capable of supporting the aircraft in fixed-wing flight. The circulation control is accomplished by blowing high pressure air over a rounded trailing edge of an elliptical airfoil, exploiting the Coanda effect. The elliptical leading and trailing edges are indistinguishable when the blades are stopped, thus blowing out either end of the major axis of the elliptical airfoil provides the necessary efficiency in both forward and reverse flow. For this system, the lift on the airfoil is a function of the quantity of blowing air, hence, roll- and pitch-moment control of the model can be achieved through control of the blowing on all four blades. No mechanical control surface or actuator is required other than a nonrotating air valve that modulates the airflow to the blades (ref. 1).

The most complex portion of the flight is the conversion from rotary-wing to fixed-wing operation. The aerodynamic aspects of the conversion encompass conditions of relatively high forward velocity over the advancing blade and reverse velocity over a portion of the retreating blade. Obviously, as the rotor is slowed and stopped, these conditions are changing constantly. For the X-Wing, the problem is not only to maintain sufficient lift for flight but also to assure a moment balance acting across the rotor disk, so as to maintain trimmed flight. The X-Wing design treats the lift and moment balance problems by blowing out of both the leading- and trailing-edge slots in the mixed flow region and by using cyclic pressure inputs which are controlled by a hub-moment feedback control system that senses the moments being developed by the rotor.

This report presents the results of the X-Wing model tests made in the Ames Research Center 40- by 80-Foot Wind Tunnel. The objectives were to determine the adequacy of the control system in maintaining pitch and roll moment balance during the start/stop sequences, to assess the ability of the blades to withstand the stopping/starting loads, to determine the adequacy of the control system to maintain balance in the helicopter mode, and to assess the system's capabilities in the fixed-wing mode (Rotor Data Reduction System 40- by 80-Foot Wind Tunnel. Ames internal document by Wayne Johnson and F. Silva.) A further objective was to determine the stability of the automatic hub-moment feedback control system during all modes of flight. Presented herein are time-history data of the several successful starts and stops of the X-Wing rotor at high forward speeds and the steady-state data obtained relating to the model as rotary-wing and as a fixed-wing aircraft. Also included are the stability data acquired during open-loop and closed-loop hub moment feedback control system stability tests.

MODEL DESCRIPTION

General

Figure 1 shows the X-Wing model on the test module as installed in the wind tunnel. The balance system struts and an air duct to the module were provided with fairings to minimize the extraneous airloads applied to the measuring system. The module pitch attitude (rotor-shaft angle of attack) was remotely controlled using an extendable tail strut.

Data Reduction and Presentation

Because of the variety of rotor operating conditions implicit in the concept of the X-Wing, tests were made and the data are presented for three operating regimes.

Fixed-wing mode- Steady-state data for the tare measurements and the tested operations are presented in appendix A. Table 1 presents the quantities for each fixed wing run.

TABLE 1.- FIXED-WING MODE DATA DEFINITIONS AND ORDER OF PRESENTATION

Column no.	Symbols	Parameter	Units
Col 1	VKTS	Tunnel velocity	knots
	QPSF, q	Tunnel dynamic pressure	lb/ft ²
	MTUN	Tunnel Mach number	
	PST	Tunnel static pressure	lb/in. ²
	RHO100	Tunnel air density	lb-sec ² /ft ⁴
Col 2	THETA	Rotor collective blade angle	deg
	BAR	Barometric pressure	in. Hg
	PTC	Total circulation control air gauge pressure	lb/in. ²
	WC	Circulation control air mass flow	lb/sec
	TEMPC	Circulation control air output temperature	°F
Col 3	XTEL	Rotor blade trailing edge airflow control actuator position	
	RPO	Plenum pressure ratio	
	PTP	Plenum gauge pressure	lb/in. ²
	TEMPP	Plenum air temperature	°F
	WP	Plenum airflow to rotor blades	lb/sec
Col 4	XLEL	Rotor blade leading edge airflow control actuator position	
	PT59T	Reference rotor blade peak slot pressure on trailing edge at blade station 0.59R	lb/in. ²
	PTRT	Reference rotor blade peak gauge pressure on trailing edge at blade root	lb/in. ²
	XP	Pitch cyclic actuator position	in.
	CPP	Pneumatic power coefficient; <u>550 (rotor pneumatic hp)</u> 1.689 qS (VKTS)	
Col 5	ALFS, C	Rotor shaft angle of attack	deg
	PT 59 L	Reference rotor blade peak slot pressure on leading edge at blade station 0.59R	lb/in. ²
	VJR	Rotor blade root jet airflow velocity	ft/sec

TABLE 1.- CONCLUDED

Column no.	Symbols	Parameter	Units
Col 5 - concluded	XR	Roll cyclic actuator position	in.
	CMU100	Airflow momentum coefficient multiplied by 100; $\frac{(WP)(VJR)}{32.174(qS)}$	
Col 6	CLH	Lift coefficient, as measured at rotor hub, $\frac{\text{lift}}{qS}$	ft ² deg
	CDE	Total drag coefficient, $\frac{\text{drag}}{qS}$	
	FE	Equivalent flat-plate drag area; $\frac{\text{drag}}{q}$	
	ANGX/L	Inclination of thrust vector	
	CL'H	Roll moment coefficient, as measured at rotor hub; $\frac{\text{roll}}{qSb}$	
Col 7	CMH	Pitch moment coefficient, as measured at rotor hub; $\frac{\text{pitch}}{qSc}$	
	CL	Lift coefficient; $\frac{\text{lift}}{qS}$	
	CD	Drag coefficient; $\frac{\text{drag}}{qS}$	
	CY	Side force coefficient; $\frac{\text{side force}}{qS}$	
	CN	Yaw moment coefficient; $\frac{\text{yaw}}{qSb}$	
	CL'	Roll moment coefficient; $\frac{\text{roll}}{qSb}$	
	CM	Pitch moment coefficient; $\frac{\text{pitch}}{qSc}$	

where:

- b = X-Wing fixed-blade semispan = 8.839 ft
- c = rotor blade chord = 0.051 ft
- R = rotor radius = 12.500 ft
- S = rotor blade planform area = 70.7 ft²
- ρ = current tunnel air density

Rotary wing mode- Steady-state and dynamic data for both tare measurements and test conditions are presented in appendix B. Table 2 presents the quantities for each rotary wing run.

TABLE 2.- ROTARY WING MODE DATA DEFINITIONS AND ORDER OF PRESENTATION

Column no.	Symbols	Parameter	Units
Col 1	VKTS	See table 1, column 1	knots
	QPSP, q	See table 1, column 1	lb/ft ²
	MTUN	See table 1, column 1	
	PST	See table 1, column 1	lb/in. ²
	RH100	See table 1, column 1	lb-sec ² /ft ⁴
Col 2	RPM, Ω	Rotor rotating velocity	rpm
	V/OR	Rotor advance ratio	
	TIPM	Rotor blade rotating tip Mach number	
	TEMP	Tunnel temperature	°F
	OMEG*R, ΩR	Rotor blade rotating tip speed	ft/sec
Col 3	THETA	See table 1, column 2	
	BAR	See table 1, column 2	
	PTC	See table 1, column 2	
	TEMPC	See table 1, column 2	
	WC	See table 1, column 2	
	CPCR100	Compressor horsepower coefficient; $\frac{550 \text{ (horsepower)}}{\rho S (\Omega R)^3}$	
Col 4	X2P	2/Rev. actuator position	in.
	VJR	See table 1, column 5	
	PTP	See table 1, column 3	
	TEMPP	See table 1, column 3	
	WP	See table 1, column 3	
	CPPR100	Pneumatic horsepower coefficient multiplied by 100; $\frac{550 \text{ (horsepower)}}{\rho S (\Omega R)^3} * 100$	
Col 5	XLEL	See table 1, column 4	
	XTEL	See table 1, column 3	
	XR	See table 1, column 5	
	XP	See table 1, column 4	
	CMUR100	Rotor airflow coefficient, $\frac{WP (VJR)}{\rho S (\Omega R)^2}$	
Col 6	RPO	See table 1, column 3	
	PTRT	See table 1, column 4	
	PT59L	See table 1, column 5	
	PT59T	See table 1, column 4	
	CPS100	Rotor shaft horsepower coefficient, multiplied by 100, $\frac{550 \text{ (horsepower)}}{\rho S (\Omega R)^3} * 100$	
Col 7	ALFS, C	See table 1, column 5	
	L/D	Rotor lift to rotor drag ratio	
	ANGX/L	See table 1, column 6	
	FE	See table 1, column 6	
	CP/S	Rotor power coefficient	

TABLE 2.- CONCLUDED

Column no.	Symbols	Parameter	Units
Col 8	CLR/S	Rotor lift coefficient; $\frac{\text{lift}}{\rho S(\Omega R)^2}$	
	CMY/S	Rotor pitch moment coefficient; $\frac{\text{pitch}}{\rho SR(\Omega R)^2}$	
	CT	Rotor thrust coefficient; $\frac{\text{thrust}}{\rho S(\Omega R)^2}$	
	CMRH	Rotor pitch moment coefficient, as measured at rotor hub; $\frac{\text{pitch}}{\rho SR(\Omega R)^2}$	
	CQO/S	Total rotary power coefficient; $\frac{\text{torque}}{\rho S(\Omega)} - \frac{CP}{S}$	
Col 9	CXR/S	Rotor drag coefficient; $\frac{\text{drag}}{\rho S(\Omega R)^2}$	
	CMZ/S	Yaw moment coefficient; $\frac{\text{yaw}}{\rho SR(\Omega R)^2}$	
	CTH	Rotor lift coefficient, as measured at rotor hub; $\frac{\text{lift}}{\rho S(\Omega R)^2}$	
	CPR100	Rotor total power coefficient, multi- plied by 100; CPS100 + CPPR100	
	CQ/S	Rotor shaft torque coefficient; $(CMZ/S)\cos(ALFS,C) + (CMX/S)\sin(ALFS,C)$	
Col 10	CYR/S	Rotor side force coefficient; $\frac{\text{side force}}{\rho S(\Omega R)^2}$	
	CMX/S	Rotor roll coefficient; $\frac{\text{roll}}{\rho SR(\Omega R)^2}$	
	CH	Rotor H force coefficient; $\frac{H \text{ force}}{\rho S(\Omega R)^2}$	
	CL'RH	Rotor roll moment coefficient, as mea- sured at rotor hub; $\frac{\text{roll}}{\rho SR(\Omega R)^2}$	
	CQO/S	Total rotary torque minus induced and propulsive torque; $CQ/S - (CQ/S)_{\text{ideal}}$	

Transient modes- Conversion tests, from fixed-wing to rotary-wing modes and the reverse, were conducted at several wind-tunnel conditions. Figures 5 through 18 show time histories of the starts and stops for which the following quantities were recorded. These time-history plots were generated by Lockheed-California Company from digital data provided by Ames Research Center.

TABLE 3.- TIME HISTORY PLOTS

Parameter	Units	Figure
Rotor azimuth	sine (ψ)	5a-18a
Rotor speed	rpm	5a-18a
Roll cyclic error	V	5a-18a
Pitch cyclic error	V	5a-18a
Rotor rolling moment	in.-lb ^a	5b-18b
Rotor pitching moment	in.-lb ^a	5b-18b
Rotor shaft torque	in.-lb ^b	5b-18b
Rotor thrust	lb ^a	5b-18b
Pilot input roll command	V	5c-18c
Pilot input pitch command	V	5c-18c
Roll cyclic actuator	in. ^c	5c-18c
Pitch cyclic actuator	in. ^c	5c-18c
Blade flap bending moment, blade #1 cuff	in.-lb	5d-18d
Blade chord bending moment, blade #1 at cuff	in.-lb	5d-18d
Blade torsion bending moment, blade #1 at cuff	in.-lb	5d-18d
Blade feathering angle	deg ^d	5d-18d
Blade flap bending moment, blade #1 cuff	in.-lb ^e	5e-18e
Blade flap bending moment, blade #2 cuff	in.-lb ^f	5e-18e
Blade flap bending moment, blade #3 cuff	in.-lb ^f	5e-18e
Blade flap bending moment, blade #4 cuff	in.-lb	5e-18e
Blade chord bending moment, blade #1 cuff	in.-lb	5f-18f
Blade chord bending moment, blade #2 cuff	in.-lb	5f-18f
Blade chord bending moment, blade #3 cuff	in.-lb	5f-18f
Blade chord bending moment, blade #4 cuff	in.-lb	5f-18f
Load cell thrust	lb	5g-18g
Blade torsional moment, blade #1 40% radial station	in.-lb	5g-18g
Blade chord bending moment, blade #1 25% radial station	in.-lb	5g-18g
Blade chord bending moment, blade #1 40% radial station	in.-lb	5g-18g
Plenum pressure	lb/in. ²	5h-18h
Total pressure trailing edge duct, blade #1, at root	lb/in. ²	5h-18h
Total pressure trailing edge duct, blade #1, at 29% radial station	lb/in. ²	5h-18h
Total pressure trailing edge duct, blade #1, at 44% radial station	lb/in. ²	5h-18h

^aAs obtained from the model moment and thrust sensors.

^bAs commanded by model automatic control system to drive the cyclic error signal (fig. 5a) to zero.

^cFrom strain gauge rotor shaft.

^dModel has no cyclic feathering system, so signal reflects looseness of collective system.

^eRepeat from figure d.

^fNote scale change.

TABLE 3.- CONCLUDED

Parameter	Units	Figure
Static pressure trailing edge duct, blade #1 at 44% radial station	lb/in. ²	5i-18i
Static pressure trailing edge duct, blade #1 at 59% radial station	lb/in. ²	5i-18i
Static pressure trailing edge duct, blade #1 at 74% radial station	lb/in. ²	5i-18i
Static pressure trailing edge duct, blade #1 at 88% radial station	lb/in. ²	5i-18i
Total pressure trailing edge duct, blade #1 at 59% radial station	lb/in. ²	5j-18j
Total pressure trailing edge duct, blade #1 at 74% radial station	lb/in. ²	5j-18j
Rotor blade trailing-edge slot deflection, blade #1 at 29% radial station	in.	5j-18j
Rotor blade trailing-edge slot deflection, blade #1 at 44% radial station	in.	5j-18j
Total pressure, trailing edge duct, blade #1 at 59% radial station	lb/in. ²	5k-18k
Total pressure, trailing edge duct, blade #3 at 59% radial station	lb/in. ²	5k-18k
Total pressure, trailing edge duct, blade #4 at 59% radial station	lb/in. ²	5k-18k
Total pressure, trailing edge duct, blade #1 at 74% radial station	lb/in. ²	5k-18k
Total pressure, leading edge duct, blade #1 at 59% radial station	lb/in. ²	5l-18l
Total pressure, leading edge duct, blade #3 at 59% radial station	lb/in. ²	5l-18l
Total pressure, leading edge duct, blade #4 at 59% radial station	lb/in. ²	5l-18l
Total pressure, leading edge duct, blade #1 at 72% radial station	lb/in. ²	5l-18l
Rotor blade trailing-edge slot deflection, blade #1 at 59% radial station	in. ^g	5m-18m
Rotor blade trailing-edge slot deflection, blade #1 at 74% radial station	in. ^g	5m-18m
Rotor blade trailing-edge slot deflection, blade #1 at 88% radial station	in.	5m-18m
Static pressure, trailing edge duct, blade #1 at root	lb/in. ²	5m-18m

where: ψ = reference rotor blade azimuth angle with respect to 0° over empennage

During preselected test conditions, the Dynamic Analysis System (DAS) was utilized to assess on-line the hub-moment feedback control system stability. The measurements recorded are listed in table 4 and the Bode plots for the tabulated conditions are presented in figures 19 through 61. From these plots, two important parameters, gain margin and phase margin, may be obtained which define the relative stability of the control loop under examination. Gain margin is defined as the magnitude of transfer function (in dB) evaluated at the frequency where the phase angle is -180° . The phase margin is defined as the phase angle (deg) above -180° at the gain crossover frequency (i.e., dB = 0).^{2,3}

TABLE 4.- HUB MOMENT FEEDBACK CONTROL SYSTEM STABILITY DATA

Figure	Run	Point	Feedback control loop condition	
			Roll loop	Pitch loop
19	23	20	Open	Stability test
20	23	38-1	Stability test	Open
21	23	38-2	Open	Stability test
22	23	38-3	Closed	Stability test
23	25	9	Open	Stability test
24	25	10	Stability test	Open
25	25	11	Closed	Stability test
26	27	16	Open	Stability test
27	27	17	Stability test	Open
28	27	18	Closed	Stability test
29	27	19	Stability test	Closed
30	34	14	Stability test	Open
31	34	15	Open	Stability test
32	34	16	Stability test	Closed
33	34	17	Closed	Stability test
34	35	3	Stability test	Open
35	35	4	Open	Stability test
36	35	5	Stability test	Closed
37	35	6	Closed	Stability test
38	36	4	Stability test	Open
39	36	5	Closed	Stability test
40	38	8	Stability test	Open
41	38	9	Open	Stability test
42	38	10	Open	Stability test
43	39	4	Stability test	Open
44	39	5	Open	Stability test
45	39	7	Open	Stability test
46	39	8	Stability test	Open
47	39	9	Stability test	Closed
48	39	11	Open	Stability test
49	39	12	Stability test	Open
50	39	14	Open	Stability test
51	39	15	Stability test	Open

TABLE 4.- CONCLUDED

Figure	Run	Point	Feedback control loop condition	
			Roll loop	Pitch loop
52	39	21	Stability test	Open
53	40	16	Open	Stability test
54	40	17	Stability test	Open
55	40	18	Open	Stability test
56	40	19	Closed	Stability test
57	40	22	Stability test	Open
58	46	5	Stability test	Open
59	46	7	Open	Stability test
60	46	8	Closed	Stability test
61	46	11	Open	Stability test

CONCLUDING REMARKS

The test objectives as set forth in the introduction of this report were successfully met. The X-Wing control system was able to maintain pitch- and roll-moment balance in the rotary-wing mode and during the start/stop sequences, the blades were able to withstand the loads encountered in the starting and stopping procedures, and the capabilities of the control system in the fixed-wing mode were determined. The automatic hub-moment feedback control system demonstrated adequate gain margin for the majority of the modes of flight tested.

APPENDIX A

FIXED WING MODE STEADY STATE DATA

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2A 3C 4T 5D

PUN	17	VKTS	THETA	YTEL	XLEL	ALFS+C	CLM	CL
PT	C	CPSF	PAR	KPO	PT59T	PT59L	C9L	CD
		MTUN	PTC	PTP	PTRY	VJR	FE	CV
		PST	TEMPC	TEMPP	XP	XR	ANGX/L	CH
		RMP100	WC	WP	CPP	CMU100	CL'N	CL'
							CMH	CM
PT 17	C	120.7	-4.7	1.38	1.58	4.0	0.42338	0.28008
		45.5	30.09	1.00	-0.20	0.	0.01	-0.00576
		C.1782	-0.13	14.45	-0.13	1106.540	-0.38	0.01902
		2082.28	152.0	152.0	0.08	-0.04	1.1	0.00141
		0.0022	0.54	0.53	0.015	0.56164	0.01726	0.01491
							0.00000	0.00000
PT 7		120.6	-4.6	1.39	1.59	4.0	0.43551	9.26468
		45.9	30.05	1.00	-0.20	0.	-0.00	-0.00105
		C.1782	-0.13	14.45	-0.13	1106.540	-0.07	0.07237
		2082.28	152.0	152.0	0.10	-0.04	0.2	-0.00352
		0.0022	-0.03	-0.04	-0.001	-0.03743	0.01852	0.02512
							0.00000	0.00000
PT 8		120.5	-4.6	1.38	1.58	4.0	0.44353	0.27414
		45.5	30.09	1.00	-0.20	0.	-0.00	-0.00058
		C.1781	-0.13	14.40	-0.11	1106.540	-0.04	-0.00149
		2082.31	152.0	152.0	0.10	-0.04	0.1	-0.03419
		0.0022	-0.03	-0.04	-0.001	-0.03745	0.01945	0.01374
							0.00000	0.00000
PT 9		120.4	-4.7	1.39	1.59	4.0	0.39391	0.27481
		45.8	30.09	1.00	-0.20	0.	0.07	0.00737
		C.1780	-0.08	14.41	-0.11	1106.540	0.52	-0.00446
		2082.38	152.0	152.0	0.10	-0.05	-1.5	-0.00208
		0.0022	0.54	0.53	0.015	0.56623	0.01863	0.01479
							0.00000	0.00000
PT 10		120.4	-4.6	1.39	1.59	4.0	0.43764	0.27216
		45.8	30.09	1.00	-0.23	0.	0.01	0.01453
		C.1779	-0.08	14.45	-0.11	1106.540	0.56	0.01435
		2082.43	152.0	152.0	0.10	-0.05	-2.8	0.00329
		0.0022	-0.03	-0.03	-0.001	-0.03346	0.01861	0.02445
							0.00000	0.00000

PT	ID	THETA				XTEL				XLEL				ALFS,C				CLH				CL								
		PAR	PTC	TEMPC	WC	RPO	PTP	TEMP	WP	PT59T	PTRT	XP	CPP	PT59L	VJR	XR	CMU100	CDE	FE	ANGX/L	CL*H	CMH	CL	CD	CV	CN	CL*	CM		
PT 11	120.4	-4.7	30.09	1.39	1.59	4.0	0.44143	0.29534	0.01791	0.01867	0.00119	0.01805	0.00000	0.28853	0.01212	0.01590	-0.00076	0.02166	0.00000											
	45.8	30.05	1.00	1.58	4.0	0.41480	0.28853	0.01212	0.01590	-0.00076	0.02166	0.00000																		
	0.1779	-0.08	14.41	-0.20	0.	0.03																								
	2082.40	152.0	152.0	0.11	0.05	0.86																								
PT 12	120.4	-4.7	30.05	1.39	1.58	4.0	0.41480	0.28853	0.01212	0.01590	-0.00076	0.02166	0.00000	0.28853	0.01212	0.01590	-0.00076	0.02166	0.00000											
	45.8	30.05	1.00	-0.20	0.	0.03																								
	0.1779	-0.08	14.41	-0.20	0.	0.86																								
	2082.40	152.0	152.0	0.11	0.05	0.86																								

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

PT	ID	THETA				XTEL				XLEL				ALFS,C				CLH				CL									
		PAR	PTC	TEMPC	WC	RPO	PTP	TEMP	WP	PT59T	PTRT	XP	CPP	PT59L	VJR	XR	CMU100	CDE	FE	ANGX/L	CL*H	CMH	CL	CD	CV	CN	CL*	CM			
PT 7	120.9	-3.7	30.08	-1.09	1.12	0.0	0.15769	0.12166	0.00362	0.02616	0.00272	0.01049	0.00000	0.28853	0.01212	0.01590	-0.00076	0.02166	0.00000												
	46.6	30.08	1.00	-0.17	0.	0.02																									
	0.1796	-0.08	14.51	-0.08	0.	-0.26																									
	2080.85	152.0	152.0	0.03	0.00	1.7																									
PT 16	121.0	-3.7	30.08	-1.09	1.12	0.0	0.15769	0.12166	0.00362	0.02616	0.00272	0.01049	0.00000	0.28853	0.01212	0.01590	-0.00076	0.02166	0.00000												
	46.7	30.08	1.00	-0.17	0.	0.02																									
	0.1796	-0.08	14.50	-0.08	0.	-0.35																									
	2080.86	152.0	152.0	0.03	0.01	2.4																									

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2B 3A 4C 5D

POINT	VKTS	THETA	XTEL	XLEL	ALFS,C	CLM	CL
PT 16	121.1	-3.7	-1.09	1.15	4.0	3.33045	0.26535
PT 10	46.7	30.08	1.01	-0.17	0.	0.02	-0.00999
	C.1757	-0.08	14.54	-0.08	1106.540	-0.65	0.01791
	7C60.81	152.0	152.0	0.03	0.00	2.0	0.00014
	C.C022	0.98	0.96	0.027	1.00202	0.01512	0.00847
						0.00300	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2C 3A 4C 5D

POINT	VKTS	THETA	XTEL	XLEL	ALFS,C	CLM	CL
PT 16	121.2	-2.8	-1.08	1.15	4.0	0.31630	0.75465
PT 5	46.7	30.08	1.00	-0.15	0.	0.02	-0.00999
	C.1758	-0.08	14.50	-0.08	1106.540	-0.71	0.01791
	7C6C.75	152.0	152.0	0.03	0.01	2.1	0.00014
	0.0022	0.98	0.96	0.027	1.00155	0.01548	0.00687
						0.00000	0.00000

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 20 3A 4C 5A

VRKS	TMETA	XTELE	XLELE	ALFS,C	CLM	CL
GPSF	RAP	RPO	PT59T	PT59L	CDE	CP
MTUN	PTC	PTP	PTRT	VJR	FE	CY
PST	TEMPC	TEMP	XP	XR	ANGX/L	CN
PM0100	WC	WP	CPP	CMU100	CL*H	CL*
					CMH	CM
RUN 16	-0.1	-1.10	1.12	-4.0	-0.00196	-0.00398
PT 3	30.08	1.00	-0.17	0.	0.03	0.00213
	-0.13	14.48	-0.10	1106.540	0.15	0.00997
	152.0	152.0	0.03	0.00	-151.8	-0.00087
	0.97	0.96	0.027	0.99631	-0.00082	-0.00903
					0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 20 3A 4C 5B

VRKS	TMETA	XTELE	XLELE	ALFS,C	CLM	CL
GPSF	RAK	RPO	PT59T	PT59L	CDE	CP
MTUN	PTC	PTP	PTRT	VJR	FE	CY
PST	TEMPC	T-MPP	XP	XR	ANGX/L	CN
RM0100	WC	WP	CPP	CMU100	CL*H	CL*
					CMH	CM
RUN 16	-0.1	-1.09	1.06	0.0	0.12078	0.13879
PT ?	30.08	1.00	-0.14	0.	0.01	-0.00503
	-0.13	14.47	-0.10	1106.540	-0.64	0.00207
	152.0	152.0	0.02	0.01	3.7	-0.00158
	0.073	0.53	0.015	0.54964	0.00673	-0.00476
					0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

RUN 10
PT -

1A 20 3A 4C 5D	VKTS	THETA	YTEL	XLEL	ALFS,C	CLM	CL
	QPSF	RAR	RPO	PT59T	PT59L	CDE	CO
	MTUN	PTC	PTP	PTRT	VJP	FE	CV
	PST	TEMPC	TEMPP	XP	XK	ANGX/L	CM
	RMU100	WC	WP	CPP	CMU100	CL*H	CL*
						CMH	CM

	121.4	-0.1	-1.09	1.19	4.0	0.25930	0.28229
	47.2	30.08	1.01	-0.14	0.	0.00	-0.01068
	C-1306	-0.13	14.56	-0.10	1106.540	-0.76	0.00718
	2040.36	152.0	152.0	0.03	0.01	2.2	0.00016
	0.0022	0.54	0.53	0.015	0.54708	0.01385	-0.07265
						0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

RUN 10
PT 5

1A 20 3A 4C 5E	VKTS	THETA	XTEL	ALFS,C	CLM	CL
	QPSF	RAR	PT59T	PT59L	CDE	CO
	MTUN	PTC	PTRT	VJR	FE	CV
	PST	TEMPC	XP	XR	ANGX/L	CM
	RMU100	WC	CPP	CMU100	CL*H	CL*
					CMH	CM

	121.4	-0.1	1.10	6.0	0.35592	0.31456
	47.0	30.08	-0.14	0.	0.02	-0.00902
	C-1304	-0.08	-0.05	1106.540	-0.64	0.00434
	2040.48	152.0	0.03	0.00	1.5	-0.00186
	0.0022	0.98	0.027	0.99499	0.01761	-0.00369
					0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

11 20 3A 4C 5F

VSETS		THETA		XTEL		XLEL		ALFS,C		CLH		CL	
QPSF	PTUN	PAP	PTC	FPO	PTPT	PT59T	PT59L	PT59L	VJR	CDE	CY	CM	CM
PST	TEMPC	TEMP	WC	TFMPP	XP	XP	CMJ100	CMJ100	CMH	ANGX/L	CL*	CL*	CM
PHO100				WP	CPP	CPP							
121.0	-0.1	-1.09	30.08	1.01	1.03	1.03	8.0	0.42725				0.40873	
46.7	-0.08	1.01	-0.08	14.56	-0.15	-0.15	0.	0.02				-0.00590	
C.1798	-0.08	14.56	-0.08	152.0	-0.08	-0.08	1106.540	-0.42				0.00385	
2690.77	152.0	152.0	152.0	3.96	0.03	0.03	0.01	0.8				-0.00052	
C.0022	C.58	3.96	C.58		0.027	0.027	1.00098	0.02107				-0.00162	
								0.00000					

RUN 16
PT C

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

14 20 34 4C 5A

	VKTS	THETA	XTEL	XLEL	ALFS,C	CLH	CL
RUN 21							
PT 2							
	123.3	-0.0	-1.10	1.59	-4.0	0.38579	0.41466
	46.8	29.85	1.22	2.31	-0.	0.01	0.00744
	C.1806	3.55	17.48	2.67	602.327	0.53	0.02911
	2064.45	175.5	172.9	-0.37	0.14	-1.0	-0.00221
	0.0023	0.26	0.26	0.002	0.14530	0.00440	-0.01001
						0.00000	0.00000
PT 3							
	120.7	0.0	-1.10	1.59	-4.0	0.75615	0.86102
	47.1	29.85	1.60	4.24	-0.	0.11	0.03691
	0.1812	9.88	22.92	4.88	798.646	2.61	0.02309
	2064.17	213.4	201.3	-0.38	0.00	-2.5	-0.00483
	0.0023	5.33	5.13	0.075	3.82786	0.00202	-0.00579
						0.00000	0.07000
PT 4							
	120.9	-0.0	-1.11	1.59	-4.0	1.05057	1.16594
	47.1	29.85	2.09	5.39	-0.	0.21	0.06756
	0.1812	17.73	30.02	6.55	902.403	4.78	0.02700
	2064.17	167.0	204.6	-0.48	-0.02	-3.3	-0.00766
	0.0023	8.08	7.76	0.145	6.54115	0.00701	0.03044
						0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT GUIDES -
 1A 2D 3A 4C 5A

POINT	VKTS	THETA	XTEL	XLEL	ALFS+C	CLM	CL
	QPSF	RAR	RPD	PT59T	PT59L	CDE	CP
	MTUN	PTC	PTP	PTRT	VJR	FE	CY
	PST	TEMPC	TEMP	XP	XR	ANGX/L	CH
	PM100	WC	WP	CFP	CMU100	CL*H	CL*
						CMH	CH
4UN 2J							
PT 2	170.5	-0.1	-1.06	1.58	0.0	0.54415	0.53475
	47.2	29.84	1.22	2.34	-0.	0.01	-0.00086
	0.1813	4.00	17.52	2.48	587.409	-0.06	0.02169
	2063.35	154.8	184.7	-0.42	0.20	0.1	0.00119
	0.0023	0.78	0.77	0.006	0.42089	0.00000	-0.00334
							0.00000
PT 3	170.6	-0.1	-1.07	1.58	0.0	0.87708	1.07831
	47.1	29.84	1.60	4.11	-0.	0.12	0.04901
	0.1813	4.48	22.91	4.68	783.011	3.47	0.01477
	2063.43	207.2	198.1	-0.41	0.02	-2.8	-0.00583
	0.0023	5.01	4.83	0.068	3.52701	0.00304	0.00422
						0.00000	0.00000
PT 4	127.8	-0.1	-1.06	1.60	0.0	0.78595	0.90069
	47.2	29.84	1.60	5.03	-0.	0.10	0.04234
	0.1813	9.33	22.90	5.78	855.996	2.69	0.01149
	2063.39	211.1	201.0	-0.12	0.29	-2.4	-0.00373
	0.0023	3.57	3.46	0.058	2.76321	0.00472	0.00666
						0.00000	0.00000
PT 5	120.5	0.0	-1.05	1.61	0.0	0.88170	0.97065
	47.2	29.84	1.60	2.29	-0.	0.08	0.03736
	0.1814	9.58	22.87	7.50	599.160	2.64	0.03518
	2063.36	211.1	204.6	-0.75	-0.17	-2.2	-0.00535
	0.0023	4.85	4.67	0.038	2.61008	0.00000	0.00574
							0.00000
PT 6	171.0	-0.0	-1.06	1.59	0.0	0.82524	0.93572
	47.1	29.84	1.60	2.62	-0.	0.08	0.03742
	0.1813	9.43	22.88	2.78	627.831	2.65	0.04779
	2063.41	205.5	204.6	-0.76	0.30	-2.3	-0.01005
	0.0023	4.83	4.66	0.042	2.72748	0.00000	0.00000
							0.00000

PT	7	VKTS UPSF PTUW PST PH-1103	THFTA PAR PTC TE MPC WC	XTEFL FPO PTP T-MPP WP	XLLEL PT59T DTRT XP CPP	ALFS-C PT59L VJR XF CMU100	CLH CDE FF ANGX/L CL-H CMH	CL CC CV CM LL CM
PT	7	121.1 47.2 C.1E15 2063.25 C.0023	-0.1 29.84 0.85 213.1 4.88	-1.06 1.60 22.06 204.6 4.71	1.58 5.52 5.40 0.15 0.096	0.0 -0. 894.388 -0.50 3.91873	0.82372 0.13 3.28 -7.8 -0.04313 0.00000	0.96155 0.04639 -0.01787 0.00622 -0.03379 0.00000
PT		121.1 47.2 0.1315 2063.39 C.0023	-0.1 29.84 13.26 191.2 6.68	-1.08 1.83 26.20 169.4 6.41	1.57 4.66 5.38 -0.48 0.101	0.0 -0. 830.409 -0.03 4.95844	1.0328 0.17 4.84 -3.3 0.00607 0.00000	1.17773 0.06844 0.01061 -0.00052 0.00654 0.00000
PT		121.3 47.2 0.1313 2063.39 C.0022	-0.1 29.84 17.53 164.4 9.62	-1.05 2.05 25.97 205.9 9.21	1.59 5.47 6.30 -0.44 0.166	0.0 -0. 885.637 -0.04 7.64056	1.23457 0.26 6.41 -3.9 0.30585 0.00000	1.31765 0.00063 0.01560 -0.00035 0.00599 0.00000
PT	11	120.7 47.1 C.18C7 2074.07 C.0023	0.0 29.99 9.58 201.3 4.90	-1.12 1.55 22.33 154.1 4.72	1.59 3.49 4.38 -0.46 0.062	0.0 -0. 757.563 -0.05 3.34174	1.14617 0.11 3.65 -7.9 0.00542 0.00000	1.01638 0.05220 0.01987 -0.00762 0.00559 0.00000
PT	11	120.5 46.8 0.1902 2074.35 C.0023	0.0 29.99 9.53 198.1 5.72	-1.12 1.54 22.18 154.5 5.50	1.59 3.90 4.92 -0.36 0.081	0.0 -0. 796.099 -0.10 4.11675	1.18235 0.13 3.77 -2.5 0.00469 0.00000	1.04285 0.05328 0.00169 -0.00269 -0.00550 0.00000

RUN 23		PT 2		VKTS	THETA	XTEL	XLEL	ALFS,C	CLM	CL
		PAR	RPO	QPSF	PTP	PTST	PTST	PT59L	CDE	CD
		PTC	TEMP	MTUN	WP	XP	XP	VJR	FE	CV
		TEMPC	MC	PST		CPP	CPP	XR	ANGX/L	CM
				PHC100				CMU100	CL'H	CL'
									CMH	CM
		-0.2	-1.12	120.8	1.59	0.0	1.59	0.0	0.94566	1.0716R
		29.99	1.60	47.2	4.30	-0.	4.30	-0.	0.12	0.04ROR
		9.48	23.00	0.1810	4.90	733.895	4.90	733.895	3.40	0.02200
		201.0	193.2	2073.92	-0.29	0.07	-0.29	0.07	-2.7	-0.00506
		5.53	5.31	0.0023	0.076	3.92655	0.076	3.92655	0.00876	0.00A72
									0.00000	0.00000
		-0.2	-1.11	120.7	1.59	0.0	1.59	0.0	1.00316	0.99085
		29.99	1.59	47.1	3.41	-0.	3.41	-0.	0.12	0.04580
		9.63	22.87	0.1807	4.10	737.706	4.10	737.706	3.52	0.03309
		202.0	155.4	2074.07	-0.49	0.08	-0.49	0.08	-2.9	-0.00A33
		5.86	5.62	0.0023	0.070	3.87411	0.070	3.87411	0.01624	0.01983
									0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

RUN 21		PT 5		VKTS	THETA	XTEL	XLEL	ALFS,C	CLM	CL
		PAR	RPO	QPSF	PTC	PTST	PTST	PT59L	CDE	CD
		PTC	TEMP	MTUN	WP	XP	XP	VJR	FE	CV
		TEMPC	MC	PST		CPP	CPP	XR	ANGX/L	CM
				PHC100				CMU100	CL'H	CL'
									CMH	CM
		-0.1	-1.09	120.8	1.61	2.0	1.61	2.0	1.20356	1.10373
		29.85	1.59	47.0	3.58	-0.	3.58	-0.	0.14	0.05569
		9.83	22.74	0.1810	4.80	793.271	4.80	793.271	3.54	0.01705
		209.5	201.0	2064.24	-0.38	0.03	-0.38	0.03	-2.9	-0.00495
		5.85	5.62	0.0023	0.081	4.16965	0.081	4.16965	0.00605	0.00617
									0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2D 3A 4E 5C

PT	6	7	8	9	10		
RUN	21						
PT	6	7	8	9	10		
	VKTS CPSF MTUN FST RND100	THETA RAR PTC TEMPC MC	XTEL RPD PTP TEMPP WP	XLEL PTRY XP CPP	ALFS,C PT59L VJR XR CMU100	CLH CDE FE ANGX/L CL*H CMH	CL CD CV CN CL* CM
	120.7 47.0 C.1809 2064.28 0.0023	-0.0 29.85 4.15 204.6 -0.35	-1.09 1.23 17.57 157.1 -0.35	1.61 2.41 2.83 -0.09 -0.003	4.0 -0. 629.028 0.17 -0.20694	0.82725 0.01 0.67 -0.9 0.00354 0.00000	0.67561 0.00553 0.00349 -0.00230 0.00493 0.00000
	120.8 46.9 0.1808 2064.33 0.0023	-0.0 29.85 9.98 209.2 5.60	-1.11 1.59 22.81 204.6 5.39	1.59 3.98 4.70 -0.40 0.077	4.0 -0. 788.411 0.08 3.98037	1.23162 0.14 4.70 -3.3 0.00893 0.00000	1.16938 0.04655 0.01312 -0.00909 0.01154 0.00000
	120.7 46.9 0.1808 2064.38 0.0023	-0.0 29.85 10.08 205.5 5.74	-1.12 1.62 23.22 204.3 5.52	1.60 2.86 3.58 -0.70 0.063	4.0 -0. 701.430 0.39 3.63162	1.09332 3.12 4.05 -3.1 0.05117 0.00000	1.06963 0.04728 0.05143 -0.01703 0.04438 0.00000
	120.9 46.9 C.1808 2064.33 0.0023	-0.0 29.85 10.29 210.5 5.50	-1.11 1.63 23.33 204.6 5.30	1.59 5.42 6.73 0.09 0.101	4.0 -0. 911.725 -0.37 4.52509	1.17079 0.17 5.20 -3.6 -0.03814 0.00000	1.15280 0.07348 -0.04547 0.00711 -0.02879 0.00000
	120.8 46.9 C.1808 2064.38 0.0023	-0.0 29.85 9.78 208.5 5.64	-1.10 1.59 22.86 204.3 5.42	1.60 4.87 5.55 -3.07 0.094	4.0 -0. 868.201 0.27 4.41619	1.24724 0.16 4.88 -3.5 0.00219 0.00000	1.14706 0.06905 0.00526 -0.00520 0.00459 0.00000

	VKTS	THETA	XTEL	XLEL	ALFS,C	CLH	CL
PT 11	121.0	0.0	-1.10	1.55	4.0	1.16179	1.13877
	47.0	29.85	1.62	2.94	-0.	0.13	0.06054
	0.1810	10.58	23.28	3.55	694.380	4.28	0.01223
	2064.26	156.4	154.8	-0.61	-0.26	-3.0	-0.00855
	0.0023	6.15	5.90	0.065	3.83442	0.00696	0.00730
						0.00000	0.00000
PT 12	121.0	-0.0	-1.10	1.59	4.0	1.33156	1.31560
	46.9	29.86	1.82	4.87	-0.	0.21	0.10002
	0.1808	13.30	26.04	5.88	859.432	7.13	0.00920
	2065.04	183.0	197.7	-0.38	0.04	-4.4	-0.00914
	0.0023	6.53	6.66	0.113	5.36079	0.00475	0.01000
						0.00000	0.00000
PT 13	120.9	0.0	-1.11	1.60	4.0	1.43305	1.46677
	46.8	29.86	2.08	5.75	-0.	0.31	0.13273
	0.1805	17.48	29.83	7.10	932.196	9.38	0.00975
	2065.18	155.8	206.2	-0.40	0.05	-5.2	-0.01163
	0.0022	9.11	8.73	0.175	7.64543	0.00339	0.00882
						0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A	20	30	40	50										
					VKTS	THETA	XTEL	XLEL	ALFS,C	CLH	CL			
					CPSF	HAF	RPO	PTST	PT59L	CDE	CD			
					MTUH	PTC	PTP	DTRT	VJR	FF	CY			
					PST	TEMPC	TFMPP	XP	XR	ANGX/L	CM			
					FHC100	MC	UP	CPP	CMU100	CL*H	CL*			
										CMH	CM			
RUN 21														
PT 14	120.4	0.0	-1.11	1.60	6.0	0.69795					0.67508			
	40.4	29.86	1.21	1.81	-0.	0.02					0.00952			
	0.1757	2.99	17.34	2.30	573.065	0.60					-0.03051			
	2065.59	203.6	157.7	-0.05	0.15	-0.7					-0.03709			
	0.0022	1.55	1.95	0.015	1.06043	0.00069					0.03318			
						0.00030					0.03000			
RUN 27														
PT 3	120.8	0.0	-1.10	1.60	6.0	1.16827					1.05533			
	47.6	29.99	1.49	5.45	-0.	0.14					0.07374			
	0.1418	8.33	21.45	5.06	793.165	5.21					0.01320			
	2073.54	182.7	175.5	-0.26	0.23	-3.9					-0.01186			
	0.0323	5.51	4.36	0.062	3.15038	0.00887					0.03850			
						0.00300					0.00000			

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

LA	ZD	3A	4C	5F	VKTS	TMETA	XTEL	XLEL	ALFS,C	CLM	CL
PT	4				PAP	RPD	RPT	PTS9L	VJK	CDE	CD
					PTC	PTP	TRTY	XR	ANGX/L	FE	CV
					TEMPC	TEMPP	XP	CMU100	CL*M	CMH	CM
					MC	MP	CPP				CM
PT 22	4	121.0			-0.0	-1.09	1.60	8.0	0.91361		0.71106
		47.7			29.99	1.18	2.32	-0.	0.05		0.02607
		0.1821			3.70	17.03	2.71	600.107	1.84		0.00845
		2073.40			172.9	144.1	-0.22	0.21	-2.1		-0.00270
		0.0023			2.54	2.48	0.020	1.36953	0.00597		0.00445
									0.00000		0.00000
PT 5	5	120.8			0.0	-1.12	1.60	8.0	1.22910		1.12845
		47.4			29.99	1.55	4.84	-0.	0.19		0.10030
		0.1814			9.68	22.28	5.60	834.760	7.09		0.01393
		2073.76			194.5	186.9	-0.18	0.22	-5.1		-0.01419
		0.0023			5.71	5.50	0.087	4.25566	0.00666		0.00473
									0.00000		0.00000
PT 6	6	120.7			0.0	-1.11	1.60	8.0	1.13255		1.06388
		47.3			29.99	1.57	1.20	-0.	0.16		0.10144
		0.1812			9.59	22.64	3.93	721.325	7.17		0.05668
		2073.85			155.4	190.2	-0.64	0.43	-5.4		-0.02037
		0.0023			5.40	5.20	0.062	3.48649	0.05392		0.03564
									0.00000		0.00000
PT 7	7	120.5			0.0	-1.11	1.60	8.0	1.28467		1.13539
		47.2			29.99	1.55	5.50	-0.	0.19		0.09329
		0.1810			9.58	22.26	6.80	904.419	6.60		-0.03075
		2073.95			195.4	190.5	0.19	-0.17	-4.7		-0.00318
		0.0023			5.49	5.28	0.099	4.44825	-0.03611		-0.03578
									0.00000		0.00000
PT 8	8	120.2			0.0	-1.11	1.59	8.0	1.16921		1.00780
		46.9			29.99	1.55	5.60	-0.	0.17		0.08635
		0.1804			9.48	22.37	6.90	910.124	6.11		-0.00937
		2074.26			177.7	191.5	0.20	0.50	-4.7		-0.01301
		0.0023			4.33	4.19	0.080	3.57520	0.01058		0.00719
									0.00000		0.00000

VKTS									
GPSF	170.2								
MTUN	40.6								
PST	C.1A03								
PHC100	2074.2P								
	0.0023								
THETA	0.1								
PAR	29.99								
PTC	9.63								
MC	198.1								
	5.42								
XTEL	-1.11								
RPO	1.53								
PTP	22.07								
TEMP	191.8								
WP	5.22								
YLEL	1.60								
PT59T	3.21								
PTPT	3.53								
XP	-0.58								
CPP	0.357								
ALFSPC	8.0								
PT59L	-0.								
VJR	689.166								
XP	-0.21								
CMIU100	3.37439								
CLM	1.29021								
CDE	0.16								
FE	6.55								
ANGX/L	-5.0								
CLH	0.00365								
C4H	0.00000								
CL	1.13295								
CD	0.09493								
CV	0.02652								
CM	-0.01018								
CL*	-0.00170								
CM	0.00000								

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2D 3A 4A 5B

RUN →	PT	VKTS	THETA	XTEL	XLEL	ALFS+C	CLH	CL
		PAR	PPO	PTRY	PT59L	CDE		
		GPSF	PTP	XP	VJR	FE		
		MTUM	TEMP	CPP	XR	ANGX/L		
		PST	MP		CMU100	CL+H		
		RHM100				CMH		
PT 19	119.8	0.0	-0.64	-0.03	0.0	0.21388	0.17230	
	47.2	30.09	0.58	-0.14	0.	-0.01	-0.00416	
	0.1906	-0.13	14.21	-0.37	1080.522	-0.25	0.01509	
	2081.07	114.0	123.5	0.01	0.01	1.9	0.00239	
	0.0023	-0.04	-0.04	-0.001	-0.03646	0.00244	-0.00217	
						0.00000	0.00000	
PT 19	170.4	-0.3	-0.63	-0.03	0.0	1.41916	1.17978	
	46.5	30.09	1.76	5.49	-0.	0.21	0.07160	
	0.1793	14.31	75.50	6.40	881.915	5.06	0.01764	
	2081.74	144.7	191.2	-0.30	-0.08	-3.5	-0.00974	
	0.0023	8.07	7.75	0.140	6.46768	0.00884	0.00914	
						0.00000	0.00000	
PT 20	120.2	-0.3	-0.63	-0.04	0.0	1.33948	1.03054	
	46.4	30.09	1.54	4.42	-0.	0.14	0.04608	
	0.1790	10.68	22.31	5.20	811.566	3.32	0.01425	
	2081.86	193.2	142.5	-0.29	-0.07	-2.6	-0.00680	
	0.0023	5.54	6.30	0.097	4.84413	0.00763	0.00719	
						0.00000	0.00000	
PT 21	120.3	-0.3	-0.64	-0.04	0.0	1.08803	0.74598	
	46.4	30.09	1.26	3.09	-0.	0.05	0.01766	
	0.1791	5.75	18.17	1.52	686.086	1.25	0.00776	
	2081.81	191.8	148.6	-0.18	-0.14	-1.4	-0.00270	
	0.0023	3.45	3.35	0.037	2.17428	0.00189	-0.00289	
						0.00000	0.00000	

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2D 3H 4A 5F

PKTS	TMFTA	XTEL	XLEL	ALFS+C	CLH	CL
CPSF	PAP	RPO	PT59T	PT59L	CDE	CD
MTUN	PTC	PTP	PTRT	VJD	FF	CY
PST	TEMPC	T_MPP	XP	XR	ANGX/L	CM
RHO100	WC	WP	CPP	CMU100	CL*H	CL*
					CMH	CM
RUN 59	-0.2	-0.62	-0.03	8.0	1.20796	1.18631
PT 5	30.05	1.81	6.04	-0.	0.29	0.13237
	14.06	26.20	7.12	919.590	9.36	-0.01370
	166.7	190.5	-0.31	0.21	-6.4	-0.02134
	8.29	7.95	0.156	6.87734	-0.00122	0.00345
					0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A	2D	3R	4A	5G	VKTS	THETA	XTEL	XLEL	ALFS+C	CLH	CL
PT					RAP	RPO	PTST	PTST	PT59L	CDE	CC
					PTC	PTP	XP	XR	VJP	FE	CV
					TEPC	TEMP	CPP	CMU100	ANGX/L	CL*H	CM
					WC	WP					
RUN 49											
PT 3	120.3	-0.1	-0.62	-0.03	10.0	0.91066	0.79759				
	47.1	30.09	1.29	3.09	-0.	0.12	0.08007				
	0.1805	5.41	18.65	3.38	667.743	5.66	-0.00684				
	2081.09	187.9	177.1	-0.31	-0.05	-5.8	-0.00944				
	0.0023	3.62	3.50	0.036	2.18116	0.00528	0.00372				
						0.00000	0.00900				
PT 7	120.2	-0.1	-0.61	-0.01	10.0	1.05380	0.96663				
	47.0	30.09	1.57	3.98	-0.	0.21	0.12772				
	0.1803	5.58	22.67	4.68	776.274	9.03	-0.01472				
	2081.21	187.7	191.5	-0.52	0.09	-7.5	-0.01444				
	0.0023	6.39	6.14	0.085	4.45469	0.00698	0.00300				
PT 10	120.0	-0.2	-0.62	-0.03	10.0	1.21825	1.12825				
	46.6	30.09	1.90	4.84	-0.	0.29	0.15685				
	0.1755	13.56	26.03	5.70	840.021	11.09	0.00048				
	2081.59	161.1	188.2	-0.53	0.14	-7.9	-0.02239				
	0.0023	8.45	8.10	0.133	6.41524	0.00218	0.00710				
PT 11	120.1	-0.2	-0.61	-0.03	10.0	1.17575	1.12218				
	46.6	30.09	1.82	6.85	-0.	0.32	0.14927				
	0.1795	14.31	26.34	8.12	964.854	10.55	-0.00862				
	2081.59	156.2	187.6	-0.05	0.40	-7.6	-0.02288				
	0.0023	8.36	8.02	0.173	7.29129	-0.00070	0.00000				
PT 12	113.8	-0.1	-0.62	-0.03	10.0	1.19967	1.10471				
	46.3	30.09	1.88	7.02	-0.	0.22	0.16345				
	0.1750	14.86	27.23	2.40	577.518	11.56	0.00709				
	2081.88	154.2	187.3	-0.81	-0.31	-8.4	-0.01818				
	0.0023	7.99	7.67	0.060	4.20147	0.00536	0.00498				

PT 13	VKTS QPSF PTUM PST RM0100	THETA HAR PTC TEMPC WC	XTEL RPO PTP TEMP WP	XLEL PT5QT PTRT XP CPP	ALFS,C PT5QL VJR XR CMU100	CLM CDF FE ANGX/L CL*H CMH	CL CD CV CM CL* CM
	119.8 15.3 C.1790 2091.88 0.0023	-0.1 30.09 14.25 157.8 8.22	-0.62 1.85 26.70 137.3 7.88	-0.03 2.44 2.82 -0.89 0.071	10.0 -0. 621.535 0.31 4.64721	1.15606 0.22 10.35 -7.5 0.047CA 0.00000	1.05740 0.14697 0.06416 -0.02923 0.03257 0.00000
PT 14	119.3 16.3 C.1789 2091.90 0.0023	-0.2 30.05 15.01 157.2 8.15	-0.63 1.89 27.31 168.6 7.82	-0.04 7.34 9.87 J.07 0.183	10.0 -0. 597.908 -0.37 7.41045	1.20127 0.36 12.48 -8.9 -0.04172 0.00000	1.12931 0.17653 -0.08880 -0.00719 -0.03879 0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2D 3A 4A 5A

PT	WKS	THETA	XTEL	ALFS,C	CLH	CL
PT 4	120.1	-0.1	-0.02	12.0	0.54470	0.75676
	46.5	30.09	1.63	-0.	0.14	0.11420
	C.1801	6.01	1.85	513.149	8.07	-0.07670
	2081.33	197.4	-0.70	-0.41	-8.6	-0.01404
	0.0023	0.14	0.024	1.92326	0.00313	0.00330
				0.00000	0.00000	0.00000
PT 6	119.9	-0.1	-0.02	12.0	1.13993	0.94758
	46.7	30.09	2.99	-0.	0.23	0.16389
	0.1797	10.13	3.32	672.044	11.59	-0.00535
	2081.50	198.4	-0.69	-0.04	-9.5	-0.02304
	0.0023	6.34	0.064	3.85289	0.00726	0.00041
				0.00000	0.00000	0.00000
PT 15	119.8	-0.1	-0.03	12.0	1.31193	1.13866
	46.3	30.05	4.73	-0.	0.33	0.20410
	C.1788	13.65	5.30	814.198	14.43	-0.00982
	2081.95	156.5	-0.50	0.01	-10.2	-0.02764
	0.0023	8.25	0.123	6.11530	0.00305	-0.00580
				0.00000	0.00000	0.00000
PT 16	119.8	-0.2	-0.03	12.0	1.13227	1.02709
	46.3	30.09	7.81	-0.	0.35	0.18301
	0.1788	14.56	9.55	1024.379	12.94	-0.11773
	2081.55	172.9	0.35	-0.67	-10.1	-0.00466
	0.0023	7.05	0.167	6.59781	-0.07810	-0.07203
				0.00000	0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2F 3A 4A 5H

RUN #	PT	THETA				XTEL				XLEL				ALFS+C				CLH				CL								
		VKTS	FAR	PTC	WC	RPO	PTP	TEMPP	WP	PT59T	PTRT	XP	CPP	PT59L	VJR	XR	CMU100	CDE	FE	ANGX/L	CL*H	CMH	CD	CY	CN	CL*	CM			
45	7	120.4	4.5	-0.61	-0.01	12.0	0.58876	0.78037																						
		7.0	30.09	1.29	1.89	-0.01	1.89	0.09878																						
		C.1802	5.41	18.69	2.30	567.861	2.30	0.09878																						
		2081.26	196.4	189.2	-0.64	-0.17	-0.64	0.09878																						
5	7	0.0023	3.75	3.63	0.027	1.92800	0.00265	0.00000																						
		120.0	4.5	-0.61	-0.02	12.0	1.12738	0.97501																						
		46.7	30.09	1.58	3.43	-0.02	3.43	0.15027																						
		0.1797	10.18	22.77	4.00	728.294	4.00	0.1797																						
17	5	2081.50	194.7	194.8	-0.60	0.02	0.00256	0.00735																						
		0.0023	6.06	5.83	0.072	3.99281	0.00256	0.00586																						
		119.5	4.5	-0.62	-0.04	12.0	1.36961	1.10354																						
		45.9	30.09	1.77	3.82	-0.04	3.82	0.18601																						
14	5	0.1781	14.70	25.66	4.37	751.914	4.37	0.00663																						
		2082.31	155.2	187.6	-0.67	0.05	-0.67	0.01059																						
		0.0023	8.55	8.22	0.110	5.91520	0.110	0.00605																						
		119.7	4.5	-0.62	-0.04	12.0	1.34948	1.10302																						
14	5	46.0	30.09	2.00	9.04	-0.04	9.04	0.20998																						
		C.1784	17.62	28.92	11.24	1088.220	11.24	0.10151																						
		2082.15	144.4	190.2	0.34	-0.65	-0.65	0.01937																						
		0.0023	7.43	7.16	0.201	7.44403	0.201	-0.06864																						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

10 20 30 40 50

CL	CD	CV	CN	CL*	CM	ALFS,C	CLH	ALFS,C	XLEL	XTEL	THETA	VKTS	CL																																																		
CDE	FF	PT59L	VJR	XR	CMU100	PT59T	PTRT	XP	CPP	RPO	PTP	TEMP	WP	PT59T	PTRT	XR	CMU100																																														
ANGX/L	CL*H	CMH	PT59L	VJR	XR	XP	CPP	RPO	PTP	TEMP	WP	BAR	PTC	TEMPC	MC	PT59T	PTRT	XR																																													
CMH	PT59L	VJR	XR	CMU100	PT59T	PTRT	XP	CPP	RPO	PTP	TEMP	WP	BAR	PTC	TEMPC	MC	PT59T	PTRT	XR																																												
0.44660	-0.00303	0.01426	-0.00145	0.00414	0.00000	0.49498	0.01	-0.21	0.4	0.00553	0.00000	0.47755	0.00044	-0.01641	0.00124	0.00755	0.00000	0.48394	-0.00312	0.01449	-0.00181	0.00474	0.00000	0.70143	0.01899	0.00778	-0.00077	-0.00361	0.00000	0.69262	0.01552	0.00100	-0.00044	-0.00052	0.00000																												
0.49498	0.01	-0.21	0.4	0.00553	0.00000	1.62	2.79	3.18	3.07	0.011	1.34	1.28	30.09	4.25	168.0	3.83	180.3	58.0	0.2646	2030.21	0.0021	-4.0	30.09	4.25	168.0	3.83	180.3	58.0	0.2646	2030.21	0.0021	1.62	2.79	3.18	3.07	0.011	1.34	1.28	30.09	4.25	168.0	3.83	180.3	58.0	0.2646	2030.21	0.0021	1.62	2.79	3.18	3.07	0.011	1.34	1.28	30.09	4.25	168.0	3.83	180.3	58.0	0.2646	2030.21	0.0021
0.45741	0.01	0.03	-0.1	0.01114	0.00000	1.61	3.03	3.35	0.02	0.01C	1.33	1.31	30.09	4.65	170.6	3.28	180.2	57.9	0.2644	2030.32	0.0021	-4.0	30.09	4.65	170.6	3.28	180.2	57.9	0.2644	2030.32	0.0021	1.61	3.03	3.35	0.02	0.01C	1.33	1.31	30.09	4.65	170.6	3.28	180.2	57.9	0.2644	2030.32	0.0021	1.61	3.03	3.35	0.02	0.01C	1.33	1.31	30.09	4.65	170.6	3.28	180.2	57.9	0.2644	2030.32	0.0021
0.52623	0.01	-0.22	0.4	0.00969	0.00000	1.63	2.95	3.38	0.02	0.013	1.35	1.31	30.05	4.70	171.6	4.02	180.1	57.7	0.2641	2030.53	0.0021	-4.0	30.05	4.70	171.6	4.02	180.1	57.7	0.2641	2030.53	0.0021	1.63	2.95	3.38	0.02	0.013	1.35	1.31	30.05	4.70	171.6	4.02	180.1	57.7	0.2641	2030.53	0.0021	1.63	2.95	3.38	0.02	0.013	1.35	1.31	30.05	4.70	171.6	4.02	180.1	57.7	0.2641	2030.53	0.0021
0.73543	0.05	1.34	-1.6	-0.00144	0.00000	1.63	4.75	5.43	-0.10	0.032	1.34	1.61	30.09	5.78	133.7	6.29	180.4	57.5	0.2638	2030.74	0.0021	-4.0	30.09	5.78	133.7	6.29	180.4	57.5	0.2638	2030.74	0.0021	1.63	4.75	5.43	-0.10	0.032	1.34	1.61	30.09	5.78	133.7	6.29	180.4	57.5	0.2638	2030.74	0.0021	1.63	4.75	5.43	-0.10	0.032	1.34	1.61	30.09	5.78	133.7	6.29	180.4	57.5	0.2638	2030.74	0.0021
0.71888	0.06	1.41	-1.6	0.00429	0.00000	1.63	4.83	5.78	-0.01	0.035	1.34	1.59	30.09	9.63	133.3	6.86	180.3	57.3	0.2636	2030.91	0.0021	-4.0	30.09	9.63	133.3	6.86	180.3	57.3	0.2636	2030.91	0.0021	1.63	4.83	5.78	-0.01	0.035	1.34	1.59	30.09	9.63	133.3	6.86	180.3	57.3	0.2636	2030.91	0.0021	1.63	4.83	5.78	-0.01	0.035	1.34	1.59	30.09	9.63	133.3	6.86	180.3	57.3	0.2636	2030.91	0.0021

PT	H	VKTS	THETA	XTEL	XLEL	ALFS,C	CLH	CL
PT 10		RAP	1.35	PT59T	2.0	0.76407	CLH	0.70159
		PTC	1.64	PTRT	-0.	0.06	CDF	0.02446
		TEMP	23.07	XP	820.560	1.73	FE	0.01208
		WP	180.7	CPP	-0.41	-2.0	ANGX/L	-0.00556
		MC	6.36		2.35947	0.00605	CLM	0.00407
PT 11		180.3	1.35	1.63	7.0	0.75059	CMH	0.00000
		57.2	1.62	4.51	-0.	0.05		0.64340
		0.2634	22.86	5.25	818.738	1.53		0.02160
		2031.02	185.3	-0.15	-0.43	-1.8		0.01597
		0.0071	6.56	0.033	2.42717	0.00555		-0.00546
PT 12		180.5	1.34	1.63	2.0	0.50762		0.42477
		57.2	1.31	1.51	-0.	0.00		-0.00526
		0.2634	18.48	1.92	570.780	-0.37		0.07197
		2031.09	169.0	-0.43	-0.55	0.7		-0.00759
		0.0021	2.72	0.005	0.64101	0.00742		0.00380
PT 11		180.6	1.33	1.63	2.0	0.45990		0.43808
		37.1	1.32	1.53	-0.	0.00		-0.01560
		0.2633	18.59	1.90	516.785	-0.40		0.01515
		2031.09	167.7	-0.46	-0.50	0.7		-0.00439
		0.0021	3.99	0.008	0.93803	0.00000		0.00286
PT 12		180.3	1.34	1.63	2.0	0.45988		0.42874
		56.6	1.31	1.53	-0.	0.00		-0.00344
		0.2626	18.50	1.85	510.375	-0.24		0.02286
		2030.87	167.7	-0.47	-0.50	0.5		-0.00857
		0.0021	3.99	0.008	0.92581	0.00935		0.00750

	VKTS	THETA	XTEL	XLEL	ALFS.C	CLH	CL
PT 13	QPSF	PAR	RPO	PT5YT	PT5SL	CDE	CL
	PTUN	PTC	PTP	PTRT	VJR	FE	CL
	PST	TEMPC	TFMPP	XP	XR	AMGX/L	CL
	HM100	MC	WP	CPP	CMU100	CL*H	CL
						CMH	CL
	130.4	-4.0	1.36	1.64	2.0	0.50035	0.53362
	56.6	30.08	1.60	2.18	-0.	0.03	0.01207
	0.262e	10.03	22.59	2.60	603.921	0.85	0.00907
	2030.87	174.2	184.0	-0.55	-0.08	-1.3	-0.01366
	0.0021	7.05	6.79	0.019	1.86627	-0.00156	-0.00487
						0.00000	0.00000
PT 14	180.3	-4.0	1.35	1.63	2.0	0.58856	0.54023
	56.5	30.08	1.60	2.86	-0.	0.03	0.00976
	0.2625	5.88	22.58	3.37	678.267	0.66	-0.00054
	2030.97	173.5	184.7	-0.47	0.02	-1.0	-0.01578
	0.0021	7.02	6.72	0.023	2.07631	-0.00082	-0.00301
					0.00000	0.00000	
PT 15	180.5	-4.0	1.36	1.61	2.0	0.59196	0.54063
	56.5	30.08	1.61	2.89	-0.	0.04	0.01317
	0.2625	9.72	22.64	3.42	683.672	0.53	0.00330
	2030.97	187.3	186.6	-0.38	-0.07	-1.4	-0.01311
	0.0021	7.02	6.72	0.023	2.09262	-0.00492	-0.00631
					0.00000	0.00000	
PT 16	180.1	-4.0	1.35	1.62	2.0	0.35483	0.35892
	56.1	30.08	1.32	0.46	-0.	0.00	0.00251
	0.2619	4.89	18.56	0.82	347.247	0.18	-0.00387
	2031.16	173.2	184.3	-0.03	-0.76	-0.4	-0.00036
	0.0021	2.82	2.74	0.002	0.43495	0.01591	0.01137
					0.00000	0.00000	
PT 17	180.3	-4.0	1.35	1.63	2.0	0.36360	0.33024
	56.3	30.08	1.33	2.37	-0.	0.01	-0.00143
	0.2622	4.89	18.69	0.62	598.361	-0.10	-0.00338
	2031.18	174.5	187.3	-0.01	-0.74	0.2	-0.00067
	0.0021	3.11	3.01	0.008	0.82281	0.01276	0.00883
					0.00000	0.00000	

	VKTS	TMLTA	XTEL	XLEL	ALFS+C	CLM	CL
PT 18	180.8	-4.0	1.35	1.62	2.0	0.52317	0.47040
	56.7	30.08	1.31	2.35	-0.	0.01	-0.00654
	0.2627	4.80	18.54	3.20	656.817	-0.46	0.00861
	2030.83	177.1	173.2	0.00	-0.74	0.8	-0.01209
	0.0021	3.78	3.64	0.012	1.08769	-0.00109	-0.00483
					0.00000	0.00000	0.00000
PT 19	180.8	-4.0	1.35	1.62	2.0	0.50654	0.46254
	56.7	30.08	1.30	2.47	-0.	0.00	-0.00604
	0.2627	4.80	18.35	2.82	621.251	-0.43	0.01183
	2030.80	176.8	172.6	0.00	-0.73	0.7	-0.00904
	0.0021	3.78	3.65	0.010	1.07947	0.00323	-0.00381
					0.00000	0.00000	0.00000
PT 20	180.4	-4.0	1.35	1.63	2.0	0.68046	0.63182
	56.3	30.08	1.60	4.01	-0.	0.05	0.01463
	0.2622	9.72	22.63	4.42	762.549	1.18	-0.00043
	2031.18	182.4	186.0	-0.18	-0.32	-1.5	-0.01687
	0.0021	7.14	6.84	0.030	2.37883	0.00066	-0.00331
					0.00000	0.00000	0.00000
PT 21	180.4	-4.0	1.35	1.62	2.0	0.66920	0.62666
	56.1	30.08	1.61	4.11	-0.	0.05	0.00002
	0.2619	10.33	22.73	4.57	774.748	1.42	-0.00255
	2031.36	186.9	188.6	-0.12	-0.35	-1.8	-0.01292
	0.0021	7.39	7.08	0.032	2.50807	-0.00336	-0.00465
					0.00000	0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT VALUES -

IC 2C 3C 4D 5A

PT	VKTS	THETA	XTEL	XLEI	ALFSJC	CLH	CI
PT 23							
PT 24	187.9	-3.1	1.36	1.59	0.0	0.40761	0.34870
	106.2	29.57	17.22	2.36	-0.	-0.02	-0.02321
	0.2770	3.66	17.22	621.879	621.879	-1.64	-0.02399
	2013.52	158.7	191.5	0.19	-0.41	3.8	-0.00097
	0.0021	2.83	2.74	0.007	0.70571	0.00704	0.02170
						0.00000	0.00000
PT 25	188.2	-3.2	1.36	1.60	0.0	0.56740	0.57517
	106.4	25.97	1.50	4.52	-0.	0.01	-0.01370
	0.2770	8.03	20.96	5.06	820.005	-0.76	-0.03044
	2013.29	208.8	202.0	0.24	0.06	1.2	-0.03460
	0.0021	5.77	5.53	0.024	1.87369	0.00230	0.02114
						0.00000	0.03000
PT 26	188.3	-3.1	1.37	1.61	0.0	0.58279	0.57278
	106.4	29.57	1.47	7.93	-0.	0.01	-0.01240
	0.2770	7.75	20.51	3.39	691.753	-0.88	-0.00595
	2013.33	205.8	202.3	-0.41	0.11	1.4	-0.00448
	0.0021	6.07	5.82	0.018	1.66285	0.02317	0.03703
						0.00000	0.00000
PT 27	188.3	-3.2	1.35	1.60	0.0	0.58064	0.54659
	106.2	29.97	1.59	7.59	-0.	0.02	-0.00702
	0.2767	9.14	22.24	6.06	884.128	-0.50	-0.05004
	2013.54	209.2	205.2	0.23	-0.60	0.7	-0.03202
	0.0021	5.45	5.23	0.027	1.91457	-0.01655	0.00557
						0.00000	0.03000
PT 28	188.3	-3.1	1.36	1.60	0.0	0.58784	0.57489
	106.3	29.57	1.49	7.21	-0.	0.01	-0.01179
	0.2768	8.03	20.87	5.14	826.648	-0.83	-0.03600
	2013.47	204.8	204.9	0.15	0.01	1.3	-0.00452
	0.0021	6.01	5.76	0.026	1.96903	0.00429	0.07018
						0.00000	0.03000

PT 26	VRYS GPSF MTUN PST PHN100	THETA PAR PTC TEMPC WC	XTEL RPN PTP TEMP WP	XLEL PT59T PTKT XP CPP	ALFS,C PT59L VJP XR CMU100	CLH CDE FE ANGX/L CL*H CMH	CL CP CV CM CL* CM
	188.4 106.1 0.2766 2013.61 3.0021	-3.1 29.57 8.43 208.2 6.07	1.35 1.53 21.38 204.9 5.82	1.60 3.48 4.16 -0.23 3.022	0.0 -0. 757.092 -0.51 1.82460	0.55794 0.01 -0.61 0.9 0.00380 0.00000	0.54033 -0.00964 -0.01848 -0.00458 0.01479 0.00000
PT 37	189.4 106.7 0.2773 2013.74 3.0021	-3.1 29.58 7.98 211.5 5.80	1.36 1.51 21.06 206.2 5.56	1.60 2.57 3.14 -0.58 0.016	0.0 -0. 671.053 -0.25 1.53600	0.51148 -0.01 -1.61 2.7 0.00471 0.00000	0.47868 -0.02273 -0.02218 -0.00450 0.02164 0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IC 2C 3C 4C 5C

POINT	CONSTRAINT CODES	VALUES
PUN 2J PT 4D	WATS	193.5
	GPSF	106.3
	PTUN	0.2769
	PST	2013.47
	RMC100	0.0321
	THETA	-3.1
	PAP	22.57
	PTC	7.88
	TE MPC	210.8
	MC	5.94
XTEL	1.36	
RPO	1.48	
PTP	20.64	
TEMPP	203.6	
WP	5.70	
XLEL	1.60	
PT59T	3.66	
PTRT	4.19	
XP	-0.18	
CPP	0.021	
ALFS+G	2.0	
PT59L	-0.	
VJR	758.365	
X3	-0.17	
CMU100	1.78691	
CLH	0.65462	
CDE	0.01	
FE	-0.78	
ANGX/L	1.1	
CL+H	0.00401	
CMH	0.00000	
CL	0.58605	
CD	-0.01109	
CV	-0.03429	
CN	-0.00585	
CL*	0.02537	
CM	0.00000	

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT EQUATIONS -
 1. 2. 3. 4. 5.

POINT	WTS	TRFTA	XTEL	XLEL	ALFSC	CLM	CL
	CPSE	APP	PDC	PTST	PT59L	CPF	CD
	PFUN	PTC	FTP	PTBT	VJP	FF	CV
	PST	TEMPC	TEMP	YP	YJ	ANGX/L	CM
	EMC100	WC	WP	CPP	CMU100	CL*W	CM
						CMH	
PT 31	185.5	-3.1	1.36	1.60	4.0	0.53053	0.44036
	137.4	29.67	1.26	2.47	-0.	-0.01	-0.07300
	0.2783	4.07	17.66	2.87	6.0.642	-1.63	-0.0120
	2012.30	202.3	157.1	0.00	-0.51	2.5	-0.00143
	0.0021	3.69	3.56	0.009	0.53281	0.00407	0.07480
						0.00000	0.01000
PT 32	189.4	-3.1	1.37	1.60	4.0	0.57443	0.56346
	106.9	25.58	1.48	3.90	-0.	0.02	0.00122
	0.2776	7.58	20.75	4.25	762.516	0.13	-0.03721
	2013.53	206.6	157.1	-1.18	-0.04	-0.2	-0.00676
	0.0021	5.50	5.33	0.020	1.57259	0.00456	0.02572
						0.00000	0.00000
PT 33	187.6	-3.1	1.37	1.60	4.0	0.53993	0.53070
	106.9	25.58	1.47	2.88	-0.	0.01	-0.00273
	0.2777	7.58	20.53	1.34	697.589	-0.16	-0.02016
	2013.51	204.2	202.3	-1.52	0.25	0.2	-0.00709
	0.0021	5.60	5.56	0.017	1.57205	0.02530	0.04421
						0.00000	0.00000
PT 34	189.7	-3.1	1.37	1.61	4.0	0.70495	0.57478
	107.0	29.68	1.54	4.32	-0.	0.02	-0.00287
	0.2778	8.44	21.48	4.92	811.738	-0.20	-0.05119
	2013.44	210.8	204.6	0.05	-0.49	0.3	-0.00439
	0.0021	5.60	5.37	0.023	1.79091	-0.01567	0.00708
						0.00000	0.00000
PT 35	185.5	-3.1	1.37	1.60	4.0	0.60855	0.67037
	106.9	29.58	1.47	4.03	-0.	0.02	-0.00296
	0.2775	7.63	20.61	4.69	796.013	-0.21	-0.04010
	2013.60	211.1	204.6	0.04	0.17	0.3	-0.00987
	0.0021	5.75	5.51	0.022	1.80527	0.00621	0.02718
						0.00000	0.00000

PT	NO	WTS	THETA	VT.L	KLFL	ALFS.C	CLM	CL
		195.5	-3.0	1.36	1.61	4.0	0.66872	0.62765
		106.8	29.58	1.51	2.66	-0.	0.01	-0.07654
		0.2775	8.14	21.08	3.22	677.649	-0.46	-0.07378
		2013.60	210.1	205.2	-0.52	-0.45	0.6	-0.00652
		0.0021	5.97	5.69	0.017	1.58340	0.60557	0.07371
							0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CDD-S -

IC	NO	3A	4D	5A	WTS	THETA	XTEL	KLFL	ALFS.C	CLM	CL
					186.7	-0.1	-1.10	1.59	-4.0	0.26080	0.23169
					106.8	29.59	1.24	1.97	-0.	-0.01	-0.02125
					0.2775	3.61	17.33	2.47	592.651	-1.50	-0.01941
					2014.35	190.2	184.7	-0.32	0.02	5.2	-0.07063
					0.0727	3.11	3.01	0.007	0.73314	0.00428	0.01776
										0.00000	0.00000
					187.1	-0.1	-1.11	1.59	-4.0	0.54404	0.51037
					106.8	29.95	1.62	3.95	-0.	0.01	-0.01209
					0.2775	9.75	22.64	4.47	773.924	-0.92	-0.01453
					2014.33	202.6	144.8	-0.34	-0.12	1.5	0.00021
					0.0021	5.82	5.59	0.022	1.77649	0.00471	0.01554
										0.00000	0.00000

PT	A	VKTS QPSE MTUN PST RH:100	THETA RHP PTC TEMPC WC	XTEL RPN PTP TMPP WP	XLEL PES9T PTAT XP CPP	ALFS,C PT59L VJR XR CMU100	CLH CDE FE ARGX/L CL'YH CMH	CL CD CY CN CL CM
		186.6 107.3 0.2781 2013.84 0.0022	-0.1 29.99 9.55 196.7 5.67	-1.11 1.61 22.47 155.4 5.44	1.60 3.27 5.10 -0.21 0.024	0.0 -0. 817.900 0.04 1.82358	0.72062 0.01 -0.62 0.8 0.00456 0.00000	0.66078 -0.00880 -0.02450 0.00757 0.02656 0.00000
PT	C	187.0 107.3 0.2781 2013.89 0.0022	-0.1 29.99 9.60 201.3 5.14	-1.12 1.63 22.83 155.8 4.94	1.55 3.54 4.09 -0.41 0.018	0.0 -0. 746.652 -0.40 1.51279	0.68316 0.01 -0.53 0.7 0.00210 0.00000	0.64989 -0.00745 -0.03560 0.00012 0.02340 0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IC 2D 3A 4C 5B

PT	RUN	VKTS	THETA	XTEL	XLEL	ALFS+C	CLM	CL
		GPSF	BAR	RPN	PT59T	PT59L	CDE	CD
		PTUN	PTC	PTP	XP	VJR	FE	CY
		DST	TEMP	MP	CPP	XP	ANGX/L	CM
		FMJICO	WC			CMU100	CL*H	CL*
							CMH	CM
PT 17	2	159.1	-0.5	-1.09	1.58	0.0	0.17615	0.13888
		110.7	30.09	0.99	-0.46	0.	-0.01	-0.01771
		C.2323	-0.39	13.90	-0.41	1106.540	-1.25	-0.01175
		2017.50	152.0	152.0	7.07	-0.03	7.3	0.00268
		0.0022	0.49	0.49	0.004	0.21336	0.00873	0.00626
							0.00000	0.00000
BUP: 23	4	186.0	-0.0	-1.09	1.60	0.0	0.40f24	0.36016
PT 5		107.3	29.99	1.24	2.21	-0.	-0.02	-0.02677
		0.2782	3.51	17.33	2.60	603.352	-1.86	-0.02894
		2013.82	185.6	178.1	-0.22	0.09	4.2	0.00043
		0.0022	3.16	3.05	0.007	0.75434	0.00455	0.02358
							0.00000	0.00000
PT 5		165.9	-0.1	-1.10	1.60	0.0	0.72427	0.66645
		106.7	29.99	1.61	3.98	-0.	0.01	-0.00845
		0.2775	9.65	22.58	4.54	778.008	-0.60	-0.03374
		2014.23	195.4	192.5	-0.32	-0.17	0.7	-0.00003
		0.0022	5.63	5.41	0.021	1.73087	0.0290	0.02551
							0.00000	0.00000
PT 5		185.9	-0.1	-1.10	1.60	0.0	0.69069	0.64535
		106.7	29.99	1.62	7.75	-0.	0.00	-0.01541
		0.2772	9.64	22.70	3.19	669.251	-1.09	-0.00894
		2014.49	194.4	153.8	-0.62	0.15	1.4	-0.00716
		0.0022	5.62	5.40	0.016	1.49002	0.02496	0.04000
							0.00000	0.00000
PT 7		196.7	-0.1	-1.11	1.60	0.0	0.71264	0.66276
		107.3	29.99	1.64	4.92	-0.	0.02	-0.03774
		0.2781	9.90	22.88	6.00	873.203	-0.55	-0.05495
		2013.84	200.7	154.8	0.00	-0.45	0.7	0.00178
		0.0022	5.39	5.18	0.026	1.85349	-0.01555	0.03696
							0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC	21	3A	4D	5C	ALFS,C	CLH	CL
RUN 23							
PT 17	VKTS	THETA	XTEL	XLEL	ALFS,C	CLH	CL
	GPSF	RPO	RPO	PT59T	PT59L	CDE	CD
	MTUN	PTP	PTP	PTRT	VJR	FE	CY
	PST	TEMPP	TEMPP	XP	XK	ANGX/L	CM
	CMU100	WC	WP	CPP	CMU100	CL'H	CL'
						CMH	CM
	187.3	-0.1	-1.10	1.60	2.0	0.75613	0.74004
	106.8	29.99	1.61	4.16	-0.	0.02	-0.00652
	0.2775	5.85	27.57	4.67	789.606	-0.49	-0.03342
	2014.73	203.6	197.1	-0.30	-0.09	0.5	0.00231
	0.0021	5.94	5.70	0.023	1.85369	0.00460	0.07656
						0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC	21	3A	4C	5D	ALFS,C	CLH	CL
RUN 23							
PT 13	VKTS	THETA	XTEL	XLEL	ALFS,C	CLH	CL
	GPSF	RPO	RPO	PT59T	PT59L	CDE	CD
	MTUN	PTP	PTP	PTRT	VJR	FE	CY
	PST	TEMPP	TEMPP	XP	XK	ANGX/L	CM
	CMU100	WC	WP	CPP	CMU100	CL'H	CL'
						CMH	CM
	187.4	-0.0	-1.09	1.60	4.0	0.51481	0.44335
	106.8	29.99	1.24	2.23	-0.	-0.02	-0.02537
	0.2774	3.86	17.40	2.59	606.722	-1.73	-0.03093
	2014.38	193.2	186.3	-0.18	0.14	3.3	0.00297
	0.0021	2.95	2.86	0.007	0.71431	0.00559	0.02738
						0.00000	0.00000
	187.4	0.0	-1.10	1.55	4.0	0.85750	0.77616
	106.4	25.99	1.61	4.73	-0.	0.02	-0.00402
	0.2769	9.34	22.51	5.34	835.635	-0.28	-0.03755
	2014.73	203.6	198.7	-0.17	0.07	0.3	0.00273
	0.0021	4.88	4.70	0.021	1.62244	0.00256	0.02702
						0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IC 2) 3A 4C 5E

MUN 23 PT 15	MUN 23 PT 15				MUN 23 PT 15				MUN 23 PT 15				MUN 23 PT 15				MUN 23 PT 15															
	VKTS	CPSE	MTUN	SHO100	THETA	XTEL	RPO	PTP	TEMP	WP	XLEL	PT59T	PTRT	XP	CPP	ALFS,C	PT59L	VJR	XR	CMU100	CLM	GDE	FE	ANGX/L	CL*H	CMH	CL	CD	CV	CN	CL*	CM
	167.5	106.4	0.2768	0.0021	-0.1	-1.10	1.61	22.56	201.7	5.16	1.60	4.86	5.54	-0.14	0.024	6.0	-0.	850.084	0.15	1.81105	0.87134	0.02	-0.01	0.0	0.00556	0.00000	0.78424	-0.00012	-0.03299	0.00501	0.02697	0.00000
	167.8	106.1	0.2765	0.0021	-0.0	-1.11	1.62	22.68	203.9	5.33	1.59	4.44	4.96	-0.28	0.023	6.0	-0.	814.170	0.36	1.79653	0.83465	0.03	0.28	-0.3	0.00556	0.00000	0.75852	0.00198	-0.01008	0.00152	0.02749	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IC 20 3A 4D 5F

RUN 23 PT 16	CONSTRAINT CODES				CONSTRAINT CODES				CONSTRAINT CODES				CONSTRAINT CODES			
	VKTS CPSF MTUN PST RMC100	THETA RAR PTC TEMPC WC	XTEL RPO PTP TEMPP WP	XLEL PT59T PTRT XP CPP	ALFS,C PT59L VJR XR CMU100	CLM CDE FE ANGX/L CL*H CMH	CL CD CV CN CL*	CH	CLM CDE FE ANGX/L CL*H CMH	ALFS,C PT59L VJR XR CMU100	XLEL PT59T PTRT XP CPP	XTEL RPO PTP TEMPP WP	XLEL PT59T PTRT XP CPP	ALFS,C PT59L VJR XR CMU100	CLM CDE FE ANGX/L CL*H CMH	CL CD CV CN CL*
167.8	-0.1	-1.10	1.60	8.0	0.6592	0.52936		106.5	1.26	0.66	0.66	0.66	-0.01	-0.01	-0.02837	
0.2770	4.06	17.62	1.09	406.540	-0.59	-0.01594		2014.68	188.9	1.09	1.09	1.09	0.71	0.71	0.07725	
0.0021	2.78	2.70	0.003	0.45294	0.9	0.02893			2.70	-0.76	-0.76	-0.76	0.00223	0.00223	0.01814	
187.9	-0.1	-1.10	1.60	8.0	0.00000	0.00000		106.4	1.62	5.18	5.18	5.18	0.88710	0.88710	0.78551	
0.2770	5.59	22.61	5.91	867.017	0.04	0.01000		2014.02	201.7	0.01	0.01	0.01	0.71	0.71	0.07725	
0.0021	5.52	5.30	0.026	1.89924	0.00000	0.00000			5.30	0.026	0.026	0.026	0.00171	0.00171	0.01963	

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC	20	3C	4D	5A										
PT	23				VKTS	THETA	XTEL	XLEL	ALFS+C	CLM	CL			
					QPSF	RAR	RPO	PT59T	PT59L	CDE	CD			
					MTUN	FTC	PTP	PTKT	VJR	FE	CV			
					PST	TEMPC	TEMP	XP	XK	ANGX/L	CM			
					RM1100	WC	WP	CPP	CMU100	CL*H	CM			
PT	23				187.1	-0.1	1.36	1.60	0.0	0.42151	0.35446			
					105.8	29.97	1.24	2.12	-0.	-0.02	-0.02677			
					0.2775	7.98	17.38	2.54	603.755	-1.86	-0.02055			
					2012.96	203.3	150.9	-0.15	0.19	4.2	0.00238			
					0.0021	6.21	3.56	0.008	0.88441	0.00430	0.01814			
										0.00000	0.00000			
PT	21				187.2	-0.1	1.36	1.61	0.0	0.61637	0.55320			
					106.5	29.97	1.48	3.14	-0.	0.00	-0.01687			
					0.2772	7.98	20.75	3.64	711.427	-1.19	-0.02133			
					2013.15	203.3	158.4	-0.38	-0.01	1.7	-0.00216			
					0.0021	6.21	5.95	0.020	1.74718	0.00245	0.01684			
										0.00000	0.00000			

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC	20	3C	4C	5D										
PT	22				VKTS	THETA	XTEL	XLEL	ALFS+C	CLM	CL			
					QPSF	FAR	RPO	PT59T	PT59L	CDE	CD			
					MTUN	PTC	PTP	PTRT	VJR	FE	CV			
					PST	TLWPC	TEMP	XP	XK	ANGX/L	CM			
					RF1100	WC	WP	CPP	CMU100	CL*H	CM			
PT	22				187.2	-0.0	1.36	1.61	4.0	0.53260	0.43507			
					106.3	29.97	1.23	1.83	-0.	-0.02	-0.02138			
					0.2769	3.76	17.25	2.19	564.455	-1.65	-0.02763			
					2013.40	198.4	191.5	-0.36	-0.05	3.0	0.00153			
					0.0021	3.36	1.24	0.007	0.75683	0.00431	0.02415			
										0.00000	0.00000			
PT	23				189.2	-0.2	1.36	1.60	4.0	0.67523	0.63454			
					106.7	29.97	1.48	3.98	-0.	0.01	-0.01027			
					0.2773	7.98	20.68	4.39	749.130	-0.73	-0.04059			
					2013.08	203.3	155.8	-0.20	0.20	0.9	-0.00374			
					0.0021	6.22	5.96	0.023	1.85085	0.00412	0.02644			
										0.00000	0.00000			

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1) 2A 3A 4C 5D	VKTS QPSF MTUN PST PNC100	THETA RAR PTC TEMPC WC	XTEL RPO PTP TEMPP WP	XLEL PT59T PTRT XP CPP	ALFS+C PT59L VJR XR CMU100	CLH CDE FE ANGXL CL+H CMH	CL CD CV CM CL+ CM
RUN 17	190.3 113.5 3.2821 2017.69 0.0021	-4.9 30.05 -0.34 152.0 0.50	-1.09 0.99 13.92 152.0 0.49	1.58 -0.46 -0.36 0.08 0.004	4.0 0. 1106.540 -0.03 0.21514	0.35882 -0.02 -1.70 4.A 0.01673 0.00000	0.26593 -0.02411 -0.00046 0.00460 0.03+75 0.00000
PT							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 ID 2A 3C 4D 5D

POINT	VKTS	ALPHA	YTEL	XLEL	ALFS-C	CLH	CL
	GPSF	BAR	FPO	PT59T	PT59L	CDE	CD
	MTURN	PTC	PTP	PTRT	VJR	FE	CY
	PST	TEMP	TEMP	XP	XR	ANGX/L	CM
	AM100	WC	WP	CPP	CMU100	CL+H	CL*
						CMH	CM
PT 17	193.1	-4.7	1.37	1.56	4.0	0.35321	0.26912
PT 21	109.5	30.03	0.98	-0.54	0.	-0.03	-0.02549
	0.2816	-0.34	13.66	-0.39	1106.540	-1.80	0.03130
	2014.05	152.3	152.0	0.04	-0.03	5.4	0.00460
	0.0021	-0.84	-0.83	-0.006	-0.36704	0.02404	0.02751
						0.00000	0.00000
PT 22	152.8	-4.7	1.37	1.56	4.0	0.60728	0.27034
	107.5	30.03	0.97	-0.54	0.	-0.01	-0.02740
	0.2410	-0.35	13.62	-0.36	1106.540	-1.62	-0.03812
	2014.49	152.0	152.0	0.04	-0.03	4.8	0.03240
	0.0021	1.25	1.23	0.009	0.54568	0.02802	0.03981
						0.00000	0.00000
PT 23	193.0	-4.7	1.37	1.57	4.0	0.41507	0.26719
	109.5	30.03	0.97	-0.57	0.	-0.00	-0.01417
	0.2809	-0.35	13.61	-0.41	1106.540	-1.00	-0.01317
	2014.51	152.3	152.0	0.04	-0.03	3.0	0.00213
	0.0021	1.25	1.23	0.009	0.54580	0.04284	0.04509
						0.00000	0.00000
PT 24	192.9	-4.7	1.37	1.56	4.0	0.37560	0.25653
	109.2	30.03	0.98	-0.57	0.	-0.00	-0.03818
	0.2825	-0.40	13.66	-0.42	1106.540	-0.58	-0.00514
	2014.79	152.0	152.0	0.04	-0.04	1.8	0.00508
	0.0021	0.93	0.92	0.007	0.40796	0.04063	0.04756
						0.00000	0.00000
PT 25	193.2	-4.7	1.37	1.56	4.0	0.35619	0.27946
	109.1	30.03	0.98	-0.57	0.	-0.02	-0.00794
	0.2804	-0.50	13.65	-0.39	1106.540	-0.56	-0.01033
	2014.86	152.0	152.0	0.04	-0.03	1.6	0.00664
	0.0021	-1.80	-1.79	-0.014	-0.79784	0.02735	0.03778
						0.00000	0.00000

PT 26	VKTS QPSF MTUN PST RMU100	THETA RAP PTC TFMPC WC	XTEL KPO PTP TEMPP WP	YLEL PT59T PTRT XP CPP	ALFS.C PT59L VJR XR CMU100	CLH CDE FE ANGX/L CL.H CMH	CL CD CY CM CL. CM
	193.5 109.5 0.2810 2014.47 0.0020	-4.7 30.03 -0.25 152.0 1.26	1.37 0.98 13.68 152.0 1.23	1.56 -0.57 -0.41 0.04 0.009	4.0 0. 1106.540 -0.04 0.54857	0.41747 -0.00 -0.66 1.8 0.02255 0.00000	0.30190 -0.00028 -0.00579 0.00453 0.03563 0.00000
PT 27	193.9 109.4 0.2805 2014.56 0.0020	-4.7 30.03 -0.55 152.0 -1.81	1.36 0.97 13.61 152.0 -1.80	1.56 -0.57 -0.39 0.05 -0.014	4.0 0. 1106.540 -0.03 -0.79925	0.35787 -0.02 -0.65 1.8 0.02572 0.00000	0.28869 -0.00223 -0.00233 0.00396 0.03500 0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CORES -
 10 28 34 48 54

RUN 16 PT 15	VKTS QPSF MTUN PST RMU100	THETA RAR PTC TFMPC WC	XTEL KPO PTP TEMPP WP	YLEL PT59T PTRT XP CPP	ALFS.C PT59L VJR XR CMU100	CLH CDE FE ANGX/L CL.H CMH	CL CD CY CM CL. CM
	193.7 109.9 0.2813 2016.92 0.0021	-3.8 30.07 -0.25 152.3 0.94	-1.09 0.95 13.85 152.0 0.92	0.81 -0.54 -0.29 0.05 0.007	0.0 0. 1106.540 -0.01 0.40819	0.16279 -0.01 -1.31 H.5 0.00693 0.00000	0.12433 -0.01850 0.00992 0.00482 0.02565 0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 10 2H 3A 4C 5D

VPTS		THETA		XTEL		XLEL		ALFS,C		CLH		FL	
GPSF	PTUN	BAR	PTC	RPO	PTPT	PT59T	XP	PT59L	VJR	CDE	FE	CL	CD
PST	PHCI00	TEMPC	MC	TEMPP	WP	XP	CPP	XR	CMU100	ANGX/L	CL*M	CL	CV
												CL*	CM
150.5		-3.8		-1.09		1.59		4.0		0.35893		0.24693	
110.9		30.09		0.99		-0.46		0.		-0.02		-0.02704	
0.2926		-0.34		13.91		-0.35		1106.540		-1.91		-0.00545	
2017.29		152.0		152.0		0.07		-0.03		5.4		0.00420	
0.0021		0.93		0.92		0.007		0.40305		0.01685		0.02706	
										0.00000		0.00000	

RUN 17
 PT 4

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 10 20 30 40 50

PT	VKTS	THETA	XTEL	XLEL	ALFS.C	CLH	CL
	QPSF	HAR	RPN	PT59T	PT59L	CDE	CD
	PTUP	PTC	PTP	PTRT	VJR	FE	CY
	PST	TEMPC	TEMPP	XP	XR	ANGX/L	CM
	RHOLD	MC	MP	CPP	CMUI00	CL*H	CL*
						CMH	CM
RUN 17							
PT 13	190.9	-3.8	1.37	1.54	0.0	0.22112	0.13432
	110.6	30.04	0.98	-0.48	0.	-0.02	-0.01990
	0.2827	-0.39	13.69	-0.43	1106.540	-1.41	0.00462
	2013.52	152.0	152.0	0.02	-0.02	8.4	0.00422
	0.0021	0.49	0.49	0.004	0.21327	0.00854	0.01720
						0.00000	0.00000
PT 14	191.2	-3.8	1.36	1.55	0.0	0.22810	0.13745
	110.7	30.04	0.98	-0.51	0.	-0.02	-0.07085
	0.2826	-0.44	13.67	-0.43	1106.540	-1.47	-0.01544
	2013.94	152.0	152.0	0.02	-0.02	8.9	-0.00014
	0.0021	-0.09	-0.09	-0.001	-0.04120	0.01032	0.02966
						0.00000	0.00000
PT 15	191.0	-3.8	1.37	1.55	0.0	0.23167	0.12550
	110.0	30.04	0.98	-0.52	0.	-0.02	-0.01732
	0.2815	-0.49	13.67	-0.46	1106.540	-1.22	-0.02839
	2014.73	152.3	152.0	0.03	-0.02	7.9	-0.00315
	0.0021	-0.10	-0.10	-0.001	-0.04324	0.02648	0.03756
						0.00000	0.00000
PT 16	191.4	-3.7	1.37	1.56	0.0	0.20699	0.12228
	110.0	30.03	0.98	-0.54	0.	-0.00	-0.00779
	0.2816	-0.35	13.67	-0.44	1106.540	-0.52	-0.02081
	2014.02	152.0	152.0	0.03	-0.02	3.4	0.00131
	0.0021	0.49	0.49	0.004	0.21484	0.02766	0.01419
						0.00000	0.00000
PT 17	191.7	-3.7	1.37	1.56	0.0	0.21685	0.12078
	105.7	30.03	0.98	-0.54	0.	-0.00	-0.00512
	0.2812	-0.40	13.71	-0.44	1106.540	-0.36	-0.00804
	2014.28	152.0	152.0	0.03	-0.02	2.4	0.00480
	0.0021	0.49	0.49	0.004	0.21533	0.01959	0.02765
						0.00000	0.00000

PT	VKTS	TRFETA	XTEL	XLEL	ALFS,C	CLM	CL
18	192.1	-3.7	1.36	1.55	0.0	0.24501	0.14985
	110.0	30.03	0.58	-0.54	0.	0.00	-0.001c2
	0.2917	-0.39	13.70	-0.39	1106.540	-0.14	-0.00587
	2013.98	152.0	152.0	0.03	-0.02	0.7	0.00277
	0.0021	0.53	0.92	0.007	0.40493	0.00000	0.07358
19	192.1	-3.8	1.37	1.56	0.0	0.23276	0.15339
	105.8	30.03	0.58	-0.57	0.	-0.02	-0.00260
	0.2914	-0.44	13.70	-0.41	1106.540	-0.20	-0.00026
	2014.14	152.0	152.0	0.03	-0.03	1.1	0.00315
	0.0021	-1.80	-1.78	-0.013	-0.78909	0.01982	0.02677

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

ID	VKTS	TRFETA	XTEL	XLEL	ALFS,C	CLM	CL
17	152.5	-3.8	1.37	1.55	4.0	0.32510	0.27875
20	110.2	30.03	0.98	-0.54	0.	-0.02	-0.025c2
	0.2821	-0.34	13.68	-0.36	1106.540	-1.83	-0.00386
	2013.68	152.0	152.0	0.03	-0.03	5.3	0.09307
	0.0021	0.93	0.92	0.007	0.40521	0.01745	0.02755

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 10 20 30 40 50

PT 10	VKTS	THETA	XTEL	XLEL	ALFS,C	CLH	CL
	QPSF	PAR	RPO	PT59T	PT59L	CDE	CD
	MTUN	PTC	PTP	FTPT	VJR	FE	CY
	PST	TEMPC	TEMPP	XP	XR	ANGX/L	CN
	RHD100	WC	WP	CPP	CMU100	CL*H	CL*
						CMH	CM
RUN 10	153.7	-3.0	-1.09	0.88	0.0	0.16480	0.12787
PT 10	110.1	30.07	0.99	-0.33	0.	-0.01	-0.01810
	0.2815	-0.25	13.87	-0.29	1106.540	-1.28	0.00431
	2016.74	152.0	152.0	0.05	-0.00	9.1	0.00462
	0.0021	0.54	0.92	0.007	0.40751	0.00743	0.01571
						0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 10 20 30 40 50

PT 10	VKTS	THETA	XTEL	XLEL	ALFS,C	CLH	CL
	QPSF	PAR	RPO	PT59T	PT59L	CDE	CD
	MTUN	PTC	PTP	FTPT	VJR	FE	CY
	PST	TEMPC	TEMPP	XP	XR	ANGX/L	CN
	RHD100	WC	WP	CPP	CMU100	CL*H	CL*
						CMH	CM
RUN 10	209.2	0.4	-1.09	0.88	0.0	0.14756	0.14976
PT 10	170.1	30.08	0.99	-0.52	0.	-0.03	-0.02509
	0.2550	-0.42	13.81	-0.37	1106.540	-1.84	-0.07437
	2007.42	152.0	152.0	0.05	-0.00	9.8	0.00169
	0.0021	-0.10	-0.10	-0.001	-0.03958	0.00806	0.01120
						0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 20 3A 4C 5A

VRYS	THETA	XTEL	XLEL	ALFS+C	CLH	CL
199.6	0.4	-1.09	1.02	-4.0	-0.03502	-0.02141
118.9	30.08	0.99	-0.53	0.	-0.03	-0.01699
0.2034	-0.48	13.76	-0.37	1106.540	-1.14	-0.01506
2008.e7	152.0	152.0	0.05	-0.00	143.1	0.00200
0.0021	-1.81	-1.80	-0.012	-0.73515	-0.60098	0.00371
					0.00000	0.00000

RUN 14
PT 12

DATA III THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 20 3A 4C 5C

VRYS	THETA	XTEL	XLEL	ALFS+C	CLH	CL
200.3	0.4	-1.10	1.16	2.0	0.23466	0.22075
119.0	30.08	0.99	-0.53	0.	-0.02	-0.02550
0.2936	-0.38	13.83	-0.35	1106.540	-2.03	-0.02750
2008.e8	152.3	152.0	0.05	-0.00	7.3	0.00053
0.0021	0.93	0.91	0.006	0.37306	0.01269	0.01162
					0.00000	0.00000

RUN 16
PT 13

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 20 3A 4C 5D

RUN 16		VKTS		THETA		XTEL		ALFS,C		CLH		CL	
PT	14	QPSF	RAP	RAP	RPO	PT59T	PT59L	PT59L	CDE	CDE	CD	CD	CD
		MTUN	PTC	PTC	PTP	PTRT	VJP	VJP	FE	FE	CV	CV	CV
		PST	TEMPC	TEMPC	TEMPP	XP	XR	XR	ANGX/L	ANGX/L	CM	CM	CM
		RMC100	bC	bC	WP	CPP	CMU100	CMU100	CL*H	CL*H	CL*	CL*	CL*
									CMH	CMH	CM	CM	CM
		207.6	0.4	0.4	-1.09	1.25	4.0	4.0	0.33476	0.33476	0.28725	0.28725	0.28725
		119.0	30.0A	30.0A	0.99	-0.53	0.	0.	-0.03	-0.03	-0.02700	-0.02700	-0.02700
		0.2935	-0.3A	-0.3A	13.78	-0.32	1106.540	1106.540	-1.91	-1.91	-0.02046	-0.02046	-0.02046
		200A.53	152.0	152.0	152.0	0.05	-0.00	-0.00	5.4	5.4	0.00359	0.00359	0.00359
		0.0021	-0.09	-0.09	-0.09	-0.001	-0.03834	-0.03834	0.01645	0.01645	0.01201	0.01201	0.01201
									0.00000	0.00000	0.00000	0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 20 3A 4C 5E

RUN 16		VKTS		THETA		XTEL		ALFS,C		CLH		CL	
PT	15	QPSF	RAP	RAP	RPO	PT59T	PT59L	PT59L	CDE	CDE	CD	CD	CD
		MTUN	PTC	PTC	PTP	PTRT	VJR	VJR	FE	FE	CV	CV	CV
		PST	TEMPC	TEMPC	TEMPP	XP	KK	KK	ANGX/L	ANGX/L	CM	CM	CM
		RMC100	bC	bC	WP	CPP	CMU100	CMU100	CL*H	CL*H	CL*	CL*	CL*
									CMH	CMH	CM	CM	CM
		200.9	0.4	0.4	-1.09	1.23	6.0	6.0	0.43767	0.43767	0.34803	0.34803	0.34803
		118.0	30.07	30.07	0.99	-0.53	0.	0.	-0.01	-0.01	-0.02146	-0.02146	-0.02146
		0.2535	-0.33	-0.33	13.77	-0.35	1106.540	1106.540	-1.55	-1.55	-0.01150	-0.01150	-0.01150
		2007.89	152.0	152.0	152.0	0.05	-0.01	-0.01	3.6	3.6	0.00579	0.00579	0.00579
		0.0021	1.25	1.25	1.23	0.008	0.50122	0.50122	0.02051	0.02051	0.00722	0.00722	0.00722
									0.00000	0.00000	0.00000	0.00000	0.00000

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1E 2D 3A 4C 5F

VKTS		THEYA		XTELE		XLELE		ALFS.C		CLH		CL	
UPSF	MTUFI	HAF	PTC	RPO	PTPT	PT59T	PT59L	PT59L	PT59L	COE	COE	CV	CV
PST	FMPC	TFMPP	TFMPP	TFMPP	TFMPP	XP	XR	XR	XR	FF	FF	CN	CN
FMU100	AC	WP	WP	WP	WP	CPP	CMU100	CMU100	CMU100	CL*H	CL*H	CL*	CL*
										CMH	CMH	CM	CM
200.1	0.4	-1.09	1.23	7.0	0.46785	0.38963							
117.5	30.07	0.99	-0.51	0.	-0.03	-0.02027							
0.2917	-0.35	13.77	-0.31	1106.540	-1.43	-0.00967							
2004.21	152.0	152.0	0.05	-0.01	3.0	0.00652							
0.0021	-0.85	-0.84	-0.006	-0.34752	0.0220R	0.01079							
					0.00000	0.00000							

RUN 16
PT 16

APPENDIX B

ROTARY WING MODE STEADY STATE DATA

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IA 2J MI 4E 5A 6D 7C

PT	RUIN %	VRTS QPSF MTUN PST WHILO	PPM VZDR TIPM TEMP OMEGA	THETA PAR PTC TEPC WC CPCP100	X2P VJR PTP TEMP WP CPCP100	XLEL XTEL XR XP CMUR100	RPO PTRT PYSQ PT59T CPS100	ALFS,C L/D AMGX/L FE CP/S	CLP/S CMV/S CT CMPH CPO/S	CKR/S CMX/S CTH CPK100 CQ/S	CVS/S CMX/S CH CLM CQO/S
PT 4	60.0	397.5	3.0	3.0	-0.01	-1.39	1.34	-2.0	0.068246	0.002680	-0.002534
	17.1	0.1945	30.09	30.09	698.744	1.33	3.91	2.88	0.004773	0.004194	0.000376
	C.6907	0.4662	5.47	5.87	19.64	0.51	-0.	2.2	0.0683	0.07157	-C.0030
	2116.38	60.0	169.6	169.6	153.4	-0.34	3.69	-10.02	0.03400	0.6139	0.00717
	0.0074	520.4	3.23	3.46	3.14	0.15000	0.5132	0.006139	0.002846	0.004190	0.001734
			0.000	0.000	0.123						
PT 5	59.8	357.4	3.0	3.0	0.00	-1.39	1.35	-2.0	0.070813	0.003361	-0.003747
	12.1	C.1941	30.09	30.09	721.198	1.33	4.21	2.95	0.000712	0.004507	0.000337
	0.0905	0.4661	5.87	5.87	19.89	0.34	-0.	2.7	0.0709	0.07705	-0.0009C
	2116.13	60.0	169.6	169.6	163.4	-0.80	3.92	-12.61	-0.00091	0.6458	0.00336
	0.0024	520.2	3.46	3.46	3.35	0.1656C	0.5111	0.004458	0.002798	0.004467	0.001680
			0.000	0.000	0.137						
PT 6	59.9	337.4	3.0	3.0	-0.01	-1.39	1.35	-2.0	0.068499	0.003351	-0.002537
	12.1	0.1943	30.09	30.09	723.227	1.33	4.23	2.91	0.001375	0.004457	0.001371
	0.0906	0.4661	5.97	5.97	19.86	0.52	-0.	2.8	0.0686	0.07241	-C.00066
	2116.10	60.0	169.3	169.3	163.7	-0.93	3.89	-12.55	0.00016	0.6576	0.00136
	0.0024	520.2	4.08	4.08	3.94	0.19511	0.5220	0.006576	0.002929	0.004406	0.002015
			0.000	0.000	0.160						
PT 7	59.7	337.5	3.0	3.0	-0.01	-1.40	1.33	-2.0	0.074220	0.001837	-0.004593
	12.0	0.1537	30.09	30.09	691.091	1.33	3.81	2.98	0.003874	0.003867	-0.003756
	0.0903	0.4661	5.92	5.92	19.53	-0.16	-0.	1.4	0.0742	0.09113	0.0075
	2116.12	60.0	165.9	165.9	163.7	-0.67	3.55	-6.92	0.00046	0.6458	-0.00441
	0.0024	520.3	4.24	4.24	4.09	0.19345	0.5175	0.004458	0.002771	0.003697	0.001501
			0.000	0.000	0.157						

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 14 2J 3H 4E 5A 6E 7C

PKT	VKTS	FPM	THETA	X2P	XLEL	FPO	ALFS-C	CLP/S	CMZ/S	CMZ/S	CMZ/S
PT 3	60.1	397.2	3.0	-0.01	-1.39	1.48	-7.0	0.093367	0.004051	0.004051	-0.004056
	17.2	0.1952	30.09	805.170	1.34	5.46	2.81	0.001287	0.005695	0.005695	0.007564
	C.0909	0.4658	8.03	21.87	0.36	-0.	7.8	0.0935	0.76932	0.76932	-0.00118
	2116.01	60.0	170.9	155.0	-0.68	4.99	-15.18	0.09049	0.8253	0.8253	0.00046
	0.0024	519.9	4.04	3.91	0.21573	0.6583	0.008253	0.001270	0.005660	0.005660	0.002798
			0.000	0.207							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 14 2K 3C 4E 5A 6A 7E

PKT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS-C	CLP/S	CMZ/S	CMZ/S	CMZ/S
PT 4	60.5	402.2	-2.8	0.08	-1.39	1.00	0.0	-0.010190	-0.000640	-0.000640	0.000251
	12.2	0.1538	30.11	85.564	1.32	0.06	-0.86	0.001250	0.001537	0.001537	0.001712
	C.0507	0.4681	-0.07	14.73	-0.02	0.	-174.7	-0.1107	-0.00796	-0.00796	0.00054
	2117.47	68.0	71.5	73.2	0.04	0.66	3.54	0.00113	0.2122	0.2122	0.00211
	0.0023	526.5	2.07	2.01	0.01175	0.2113	0.002122	0.002756	0.001937	0.001937	0.002081
			0.000	0.000							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 13 2K 3C 4E 5A 6E 7J

PKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CP/S	CP/S	CP/S
60.2	403.5	-2.9	0.09	-1.03	1.44	4.0	0.063280	-0.005554	-0.004512	-0.004512
12.0	0.1925	30.13	769.412	1.28	4.88	3.01	-0.000371	0.001004	-0.002924	-0.002924
0.0900	0.4678	7.63	71.17	-0.65	-0.	-5.0	0.0635	0.06860	0.00113	0.00113
2119.05	72.0	171.2	166.7	-0.49	4.76	21.70	-0.00139	0.4822	-0.00437	-0.00437
0.0073	578.2	5.10	4.91	0.25652	0.2974	0.004842	0.002545	0.001787	0.001787	0.001787
		0.000	0.235							

RUN 75
PT 5

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 13 2K 3C 4E 5A 6F 7E

PKTS	RPM	THETA	X2P	XLEL	PPO	ALFS,C	CLP/S	CP/S	CP/S	CP/S
59.8	403.5	-2.8	0.06	-1.40	1.58	0.0	0.062470	0.000654	-0.001956	-0.001956
11.5	0.1910	30.11	862.160	1.29	6.03	2.86	-0.002408	0.003403	0.001274	0.001274
0.0896	0.4691	5.79	23.28	-0.27	-0.	0.6	0.0625	0.06328	-0.0045	-0.0045
2117.76	70.0	205.5	201.3	-0.82	5.38	-2.53	-0.00315	0.6407	0.00114	0.00114
0.0023	529.7	5.50	5.29	0.30821	0.4253	0.006807	0.007657	0.001403	0.002037	0.002037
		0.000	0.330							

RUN 24
PT 12

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2K 3C 4E 5P 6E 7J

VRYS	QPSF	MTUN	PST	RHO100	FPM	V/OR	TIPM	TEMP	OMEGAR	THETA	RAR	PTC	TEMPC	HC	CPCR100	XZP	VJR	PYP	TEMPP	MP	CPPR100	XLEL	XTEL	XR	XP	CMUR100	RPO	PTRT	PT59L	PT59T	CPS100	ALFS,C	L/D	ANGX/L	FE	CP/S	CLR/S	CMY/S	CT	CPMH	CPD/S	CRP/S	CMZ/S	CTH	CPRI00	CP/S	CMV/S	CM	CL00M	CON/S	
60.3	17.0	C.0902	2115.00	0.0023	404.4	0.1922	0.4653	71.0	529.4	-2.9	30.13	7.23	151.8	4.41	0.000	0.08	776.358	20.90	180.7	4.25	0.199	-0.80	1.28	-0.18	-0.70	0.22257	1.42	4.86	0.	4.68	0.3082	4.0	3.12	-3.8	16.21	0.004714	0.063708	0.000810	0.0634	0.00006	0.002376	-0.004236	0.002198	0.06623	0.4714	0.002376	-0.003241	0.001555	-0.00010	0.00092	0.001443
60.2	12.0	C.0901	2115.03	0.0023	405.1	0.1917	0.4701	71.0	530.2	-2.9	30.13	7.13	177.8	4.72	0.000	0.08	759.673	20.90	175.5	4.55	0.210	-0.96	1.28	0.26	-0.67	0.23214	1.42	4.66	0.	4.60	0.3160	4.0	2.56	-3.3	12.87	0.004823	0.059777	0.007618	0.0589	0.00286	0.002505	-0.003348	0.002329	0.06211	0.4874	0.002650	-0.001246	0.005259	-0.00076	0.00410	0.002703

RUN 25
PT 3

PT

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2K 3C 4F 5A 6A 7A

VRYS	QPSF	MTUN	PST	RHO100	FPM	V/OR	TIPM	TEMP	OMEGAR	THETA	RAR	PTC	TEMPC	HC	CPCR100	XZP	VJR	PTP	TEMPP	MP	CPPR100	XLEL	XTEL	XR	XP	CMUR100	RPO	PTRT	PT59L	PT59T	CPS100	ALFS,C	L/D	ANGX/L	FE	CP/S	CLR/S	CMY/S	CT	CPMH	CPD/S	CRP/S	CMZ/S	CTH	CPRI00	CP/S	CMV/S	CM	CL00M	CON/S
60.0	17.0	0.0570	2117.66	0.0023	403.0	0.1919	0.4690	68.0	527.5	-2.8	30.11	0.03	72.5	2.07	0.000	0.27	64.209	14.69	73.8	2.02	0.000	-1.39	1.32	-0.03	0.04	0.00878	1.00	0.03	0.	0.66	0.1975	-4.0	-1.54	-173.3	8.79	0.00191	-0.019442	0.000172	-0.0166	-0.00032	0.002722	-0.002288	0.002013	-0.01748	0.1981	0.00280	0.0027147			

RUN 24
PT 5

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2X 3C 4F 5A 6A 7J

PKTS	PPM	THETA	X2P	XLEL	RPO	ALFS.C	CLR/S	CRP/S	CPV/S
60.3	404.2	-2.8	0.22	-1.39	1.00	4.0	-0.002126	-0.000894	0.000144
12.1	0.1925	30.11	85.768	1.32	0.06	-0.19	0.002504	0.001777	0.001414
0.0505	0.4704	-0.07	14.70	-0.03	0.	-157.1	-0.00271	0.00179	0.00104
2117.52	68.0	72.2	73.8	0.05	0.66	3.43	0.00267	0.2014	0.00173
0.0023	529.1	1.41	1.38	0.00798	0.2012	0.002014	0.002183	0.001830	0.007901
		0.000	0.000						

RUN 24
PT 6

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2X 3C 4F 5A 6C 7E

PKTS	RPM	THETA	X2P	XLEL	RPO	ALFS.C	CLR/S	CRP/S	CPV/S
59.9	404.5	-2.7	0.29	-1.40	1.22	0.0	0.028561	-0.003194	-0.001736
11.9	0.1909	30.11	610.659	1.30	2.78	2.71	0.003671	0.001777	0.000879
0.0899	0.4703	3.75	17.94	-0.43	-0.	-0.8	0.0290	0.02615	0.00334
2117.71	65.0	193.5	182.4	-0.56	2.88	1.49	0.03958	0.3205	0.00304
0.0023	529.5	3.38	3.26	0.13379	0.2434	0.003205	0.002151	0.001777	0.001444
		0.000	0.008						

RUN 2-
PT 7

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2K 3C 4F 5A 6E 7J

WRTS	FPM	THETA	XZP	XLEL	RPO	ALFS,C	CLF/S	CXP/S	CY/S
63.2	403.1	-2.9	0.11	-1.03	1.41	4.0	0.063704	-0.004615	-0.003164
12.0	0.1925	30.13	734.103	1.28	4.28	3.09	0.004334	0.002145	0.001612
0.0900	0.4674	6.57	29.72	-0.16	-0.	-4.2	0.0635	0.06935	0.00019
2115.08	72.0	182.0	177.1	-0.46	4.29	17.61	0.00387	0.4042	0.00055
0.0023	527.6	5.67	5.44	0.27140	0.3054	0.004942	0.002443	0.002253	0.001647
		0.000	0.250						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2K 3C 4F 5A 6E 7C

WRTS	PPM	THETA	XZP	XLEL	RPO	ALFS,C	CLP/S	CXP/S	CY/S
55.8	404.0	-2.8	0.16	-1.60	1.56	-2.0	0.060574	0.002052	-0.003659
11.9	0.1910	30.11	845.002	1.28	5.76	2.79	0.009734	0.003720	0.000983
0.0875	0.4692	9.59	22.98	-0.25	-0.	2.0	0.06288	0.06288	0.00004
2117.76	70.0	203.9	199.7	-0.63	5.22	-8.11	0.00007	0.7746	0.00055
0.0023	528.8	6.11	5.86	0.33449	0.4574	0.00726	0.002774	0.003693	0.001654
		0.000	0.355						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

PT	3A	3B	3C	4F	5A	6F	7E	VKTS	RPM	THETA	XZP	XLEL	FPO	ALFS,C	CLP/S	CRP/S	CRP/S	PT 24
	QPSF	VDR	BAR	VJR	PTP	PTD	XTEL	PTRT	L/D	CHV/S	CHV/S	CHV/S	CHV/S	ANGX/L	CT	CTH	CTH	
	MTJN	TIMP	TEPC	T:MPP	XP	XP	CMUR100	PT59T	FE	CPH	CPH	CPH	CPH	CP/S	CP/S	CP/S	CP/S	
	PST	OMEGA	WC	WP	CP	CP		CPS100	CP/S									
	RM100		CPCF100	CPP0100														
PT 24	59.8	404.7	-2.8	0.17	-1.40	1.57	0.0	0.003755										
	11.9	0.1904	30.11	856.539	1.29	5.56	2.83	0.003676										
	0.0855	0.4701	9.59	23.15	-0.19	-0.	0.3	-0.001909										
	2117.78	70.0	203.9	199.4	-0.70	5.43	-1.48	0.00130										
	0.0023	529.8	5.75	5.52	0.31812	0.4384	0.006956	0.002761										
			0.000	0.338														
PT 5	59.8	404.0	-2.8	0.19	-1.40	1.58	0.0	0.001814										
	11.9	0.1910	30.11	864.601	1.30	6.08	2.76	0.003582										
	0.0896	0.4693	9.94	23.25	0.19	-0.	1.2	0.00666										
	2117.76	70.0	205.9	200.7	-0.77	5.46	-4.98	0.00013										
	0.0023	526.8	5.79	5.56	0.32467	0.4399	0.007054	0.002755										
			0.000	0.347														
PT 10	59.4	403.4	-2.8	0.29	-1.40	1.59	0.0	0.00497										
	11.7	0.1898	30.11	860.199	1.30	6.01	2.65	0.003217										
	0.0390	0.4686	9.89	23.36	-0.61	-0.	-1.1	0.00124										
	2117.93	70.0	205.9	200.7	-0.46	5.33	4.86	-0.00126										
	0.0023	526.1	5.72	5.50	0.31992	0.4320	0.006925	0.003070										
			0.000	0.346														
PT 11	59.6	402.2	-2.8	0.11	-1.40	1.56	0.0	0.00145										
	11.8	0.1912	30.11	832.375	1.29	5.53	2.85	0.003429										
	0.0893	0.4672	9.64	27.93	-0.15	-0.	-0.1	0.00687										
	2117.83	70.0	207.2	201.3	-0.51	5.01	0.56	0.00376										
	0.0023	526.4	5.99	5.76	0.32622	0.4334	0.006913	0.003475										
			0.000	0.353														
PT 25	60.2	404.0	-2.9	0.14	-1.36	1.56	0.0	0.00287										
	12.0	0.1923	30.13	834.472	1.28	5.81	2.87	0.003616										
	0.0900	0.4684	9.29	23.02	-0.17	-0.	0.2	0.00673										
	2119.05	72.0	192.7	179.1	-0.65	5.49	-1.08	0.00019										
	0.0023	528.8	5.11	4.92	0.27795	0.4460	0.006653	0.002785										
			0.000	0.290														

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2X 3C 4F 5A 6F 7C

RUN 2*	PKTS	RDM	THETA	X2P	XLEL	FPO	ALFS,C	CLP/S	CXP/S	CVR/S
PT 10	55.3	400.3	-2.7	0.29	-1.40	1.57	2.0	0.069139	-0.002010	-0.001823
	11.7	0.1683	30.11	850.345	1.28	5.91	2.98	0.009142	0.003294	0.002007
	0.0889	0.4720	9.49	23.02	-0.20	-0.	-1.7	0.0692	0.037200	-0.00047
	2117.95	70.0	200.0	134.5	-0.71	5.35	9.01	-0.001093	0.06521	0.00170
	0.0023	531.9	5.56	5.35	0.30335	0.3596	2.006471	0.002546	0.091361	0.001911
			0.000	0.317						

PT 10	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CXP/S	CVR/S
	60.1	402.1	-2.9	0.16	-1.42	1.56	0.0	0.066304	0.000035	-0.003923
	11.9	0.1926	30.11	840.659	1.27	5.91	2.82	0.009523	0.003507	0.000930
	0.0898	0.4662	9.54	22.99	-0.23	-0.	0.0	0.0660	0.07151	-0.00001
	2117.71	72.0	182.0	179.4	-0.64	5.46	-0.07	0.00099	0.07046	-0.00038
	0.0023	526.3	5.77	5.54	0.31364	0.4502	0.007046	0.002872	0.003552	0.001942
			0.000	0.331						

PT 11	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CXP/S	CVR/S
	60.0	404.5	-2.9	0.12	-1.41	1.56	0.0	0.065858	0.000173	-0.003751
	11.9	0.1913	30.11	832.360	1.28	5.76	2.85	0.003818	0.003511	0.001719
	0.0897	0.4691	9.74	22.92	-0.20	-0.	0.1	0.0656	0.07328	-0.00012
	2117.74	72.0	182.7	180.1	-0.65	5.46	-0.48	0.00095	0.06964	0.00047
	0.0023	525.6	5.92	5.69	0.31991	0.4450	0.006964	0.002793	0.003511	0.001954
			0.000	0.337						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2K 3C 4F 5A 6F 7J

RUN 24		PT 13		PT 20					
VKTS	REM	THETA	X2P	XLEL	RPO	ALFS/C	CLF/S	CKP/S	CVR/S
QPSF	V/OR	BAR	VJR	XTEL	PTRT	L/D	CMV/S	CMZ/S	CMX/S
MTUN	TIPM	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CM
PST	TEMP	TEMPC	TEMP	XP	PT59T	FE	CMFH	CP100	CLPH
RHC100	DMEGAR	WC	WP	CMUR100	CP5100	CP/S	CPN/S	CO/S	CPN/S
		CPCK100	CPPR100						
59.3	404.0	-2.7	0.29	-1.40	1.57	4.0	0.073616	-0.005645	-0.005902
11.9	0.1909	30.11	865.616	1.29	6.23	3.03	-0.000303	0.032876	0.002191
0.4685	0.4685	9.59	23.05	-0.18	-0.	-3.6	0.0738	0.07706	-0.00050
2117.78	71.0	201.7	195.4	-0.76	5.46	18.03	-0.00057	0.6243	0.00108
0.0023	528.9	5.36	5.16	0.30357	0.3747	0.006243	0.007590	0.003022	0.001865
		0.000	0.313						
60.3	404.2	-2.6	0.29	-1.41	1.57	4.0	0.071137	-0.003495	-0.002010
12.0	0.1922	30.11	860.258	1.28	6.06	3.06	0.001374	0.003142	0.005410
0.0902	0.4691	9.89	23.13	0.18	-0.	-2.8	0.0712	0.07495	-0.00148
2117.61	71.0	201.7	196.1	-0.76	5.56	13.37	0.00106	0.6347	0.00578
0.0023	529.1	5.60	5.35	0.31340	0.3799	0.006347	0.007575	0.003546	0.002322
		0.000	0.329						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2K 3C 4F 5A 6E 7J

RUN 25		PT 7							
VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS/C	CLP/S	CKP/S	CVR/S
QPSF	V/OR	BAR	VJR	XTEL	PTRT	L/D	CMV/S	CMZ/S	CMX/S
MTUN	TIPM	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CM
PST	TEMP	TEMPC	TEMP	XP	PT59T	FE	CMFH	CP100	CLPH
RHC100	DMEGAR	WC	WP	CMUR100	CP5100	CP/S	CPN/S	CO/S	CPN/S
		CPCK100	CPPR100						
60.3	402.8	-2.9	0.13	-0.97	1.44	4.0	0.061961	-0.004115	-0.003297
12.0	0.1930	30.13	770.624	1.28	4.81	3.08	-0.002016	0.007208	0.001725
0.0901	0.4670	7.28	21.18	-0.25	-0.	-3.8	0.0621	0.04680	-0.00022
2119.03	72.0	183.0	176.8	-0.82	4.76	15.62	-0.00171	0.4729	0.00067
0.0023	527.3	4.43	4.27	0.22401	0.3092	0.004729	0.007454	0.002322	0.001684
		0.000	0.209						

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2K 3C 4F 5H 6F 7E

MUN 25 PT 9	VARIABLES				CONSTRAINT CODES				
	VKTS QPSF MTUN PST RHCI00	RPM V/DR TIPM TEMP OMEGAR	THETA RAP PTC TEMPC WC CPCR100	X2P VJR PTP TEMP WP CPP100	XLEL XTEL XR XP CMUR100	RPO PRT PT59L PT59T CPS100	ALFS.C L/D ANGX/L FE CP/S	CLC/S CMV/S CT CMPH CPS/S	CM/S CMZ/S CTH CPI100 CO/S
60.8	401.0	-2.9	0.12	-0.50	1.57	0.0	0.067168	0.000302	-0.003831
12.2	0.1956	30.13	843.046	1.28	5.96	2.95	0.001238	0.003631	0.001740
0.0910	0.4649	9.59	23.05	-0.18	-0.	0.3	0.0672	0.07146	-0.00390
2118.81	72.0	182.4	178.8	-0.67	5.54	-1.12	0.00075	0.08948	0.00090
0.0023	524.9	5.44	5.23	0.30312	0.4514	0.006948	0.002754	0.003631	0.001511
		0.000	0.317						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2K 3C 4G 5A 6C 7J

MUN 24 PT 17	VARIABLES				CONSTRAINT CODES				
	VKTS QPSF PTUN PST RHCI00	RPM V/DR TIPM TEMP OMEGAR	THETA RAR PTC TEMPC WC CPCR100	X2P VJR PTP TEMP WP CPP100	XLEL XTEL XR XP CMUR100	RPO PRT PT59L PT59T CPS100	ALFS.C L/D ANGX/L FE CP/S	CLR/S CMV/S CT CMPH CPS/S	CM/S CMZ/S CTH CPI100 CO/S
59.8	404.9	-2.7	0.32	-1.41	1.22	4.0	0.037811	-0.02825	-0.001989
11.9	0.1903	30.11	611.375	1.28	2.78	2.71	0.001178	0.001340	0.001535
0.0995	0.4704	3.85	17.88	-0.36	-0.	-4.3	0.0379	0.04366	0.00018
2117.78	70.0	188.2	184.0	-0.70	2.74	11.03	0.0042	0.2836	0.00057
0.0023	530.1	3.12	1.02	0.12402	0.2121	0.02836	0.007118	0.001444	0.001441
		0.000	0.080						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2K 3F 4C 5A 6E 7A

PT	WTS	PPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CYP/S	CMP/S
PT 10	60.3	403.1	0.0	-0.12	-1.39	1.49	-4.0	0.069537	0.005266	-0.003457
	11.8	6.1528	29.87	547.545	1.31	2.23	5.64	0.000707	0.004978	0.000538
	0.0956	0.4648	7.73	21.73	0.06	-0.	4.3	0.0697	0.05075	-0.00050
	2100.88	76.0	167.7	166.0	-0.58	4.81	-20.03	-0.00044	0.4306	0.00335
	0.0023	527.7	4.81	4.63	0.17595	0.3393	0.004306	0.000572	0.004928	0.002106
			0.000	0.246						
PT 11	60.3	402.9	0.0	-0.13	-1.39	1.48	-4.0	0.069134	0.005154	-0.003461
	11.8	6.1531	29.87	536.643	1.31	2.13	4.65	0.001821	0.004977	0.000451
	0.0898	0.4650	7.48	21.60	0.07	-0.	4.3	0.0693	0.06175	-0.00032
	2100.83	77.0	169.3	167.0	-0.52	4.65	-19.54	0.00099	0.4721	0.00016
	0.0023	577.4	4.70	4.53	0.16839	0.3864	0.004721	0.001086	0.004974	0.002156
			0.000	0.238						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2K 3F 4F 5A 6A 7E

PT	WTS	PPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CYP/S	CMP/S
PT 24	60.3	404.3	0.0	0.27	-1.39	1.00	0.0	0.014875	-0.000837	-0.000729
	17.1	6.1922	30.11	64.555	1.32	0.03	1.27	0.001824	0.001723	-0.000799
	0.0504	0.4705	-0.07	14.66	-0.03	-0.	-3.2	0.0149	0.01436	0.00054
	2117.54	68.0	72.5	72.9	0.04	0.68	3.21	0.00410	0.2005	-0.00106
	0.0073	529.2	-0.79	-0.78	-0.00341	0.2057	0.002095	0.002175	0.001723	0.001801
			0.000	0.000						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2K 3F 4F 5A 6C 7E

PKTS	V/IR	THETA	X2P	XLFL	PPF	ALFS,C	CLP/S	CMZ/S	CMY/S
60.0	400.7	0.3	3.27	-1.40	1.22	0.0	0.052210	0.002292	0.002292
11.9	0.1929	30.11	612.514	1.28	2.83	3.04	0.000905	0.002669	0.002669
0.089A	0.4655	4.06	17.92	0.12	-0.	0.3	0.0502	0.05558A	0.05558A
2117.71	70.0	194.1	141.5	-0.86	2.75	-1.11	0.07047	0.4027	0.4027
0.0023	524.5	3.21	3.11	0.13212	0.3246	0.004027	0.002249	0.002669	0.002669
		0.000	0.087						

RUN 24
PT 11

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1A 2K 3F 4F 5A 6F 7E

VKTS	RPM	THETA	X2P	XLFL	RPO	ALFS,C	CLP/S	CMZ/S	CMY/S
60.2	403.2	0.3	0.29	-1.40	1.57	0.0	0.082703	0.001014	0.001014
12.0	0.1925	30.11	861.390	1.28	6.03	2.90	0.000731	0.004969	0.004969
0.0902	0.4684	9.34	23.02	0.15	-0.	0.7	0.0427	0.04561	0.04561
2117.61	70.0	204.6	200.0	-0.71	5.33	-3.97	-0.000273	0.4022	0.4022
0.0023	527.8	5.10	4.91	0.28678	0.5682	0.004022	0.002978	0.004569	0.004569
		0.000	0.301						

RUN 24
PT 14

PT	VKTS	RDM	THETA	X2P	XLEL	PPO	ALFS,C	CLF/S	CXR/S	CVR/S
	OPSF	V/IR	RAP	VJR	XTEL	PTRT	L/D	CMY/S	CM7/S	CMV/S
	MTUN	PTC	PTP	PTP	XR	PT59L	ANGX/L	CT	CTH	CM
	PST	TEMPC	TEMP	T.MPP	XP	PT59T	FF	CPH	CP100	CLPM
	PHC100	MC	CP100	WP	CMUP100	CPS100	CP/S	CP/S	CP/S	CP/S
	60.2	402.8	1.3	-0.12	-1.39	1.41	-2.0	0.070876	0.002982	-0.004520
	11.8	0.1528	29.87	499.559	1.30	1.83	+2.0	0.000630	0.004448	2.000950
	C.C95	0.4644	6.52	70.53	0.15	-0.	2.4	0.3709	0.06708	-0.00051
	2100.91	76.0	167.0	165.0	-0.61	4.31	-11.35	0.00007	0.4382	0.00011
	0.0023	527.2	4.45	1.28	0.14868	0.3678	0.004382	0.001726	0.004412	0.001961
			0.000	0.197						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

PT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLR/S	CXR/S	CVR/S
	OPSF	V/IR	RAR	VJR	XTEL	PTRT	L/D	CMV/C	CM7/S	CMV/S
	MTUN	PTC	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CM
	PST	TEMP	TEMPC	TEMP	XP	PT59T	FE	CPH	CP100	CLPM
	RHO100	OMEGA	MC	WP	CMUR100	CPS100	CP/S	CP/S	CP/S	CP/S
	60.1	403.7	2.9	-0.13	-1.38	1.34	-2.0	0.067415	0.002905	-0.002943
	11.7	0.1919	29.87	549.148	1.30	2.26	3.89	0.00583	0.004280	2.000745
	C.C94	0.4659	5.66	19.58	0.32	-0.	2.5	0.0675	0.06530	-0.00055
	2100.93	77.0	166.3	163.4	-0.63	3.89	-11.15	0.00011	0.4667	0.00031
	0.0023	528.5	4.28	4.12	0.15621	0.3886	0.004697	0.001473	0.004751	0.001988
			0.000	0.162						

RUN 45
PT 3

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1 2K 3C 4F 5A 6A 7E

WATS	RPH	THETA	X2P	XLEL	RPU	ALFS,C	CLP/S	CXP/S	CVR/S
50.2	401.8	-2.8	0.19	-0.78	0.98	0.0	-0.014522	-0.001315	0.001343
76.7	0.2835	30.11	1058.814	1.29	-0.06	-1.64	0.000552	0.002243	0.00137
0.1350	0.4463	-0.17	14.31	-0.50	0.	-174.8	-0.0146	0.00219	1.00366
2102.72	72.0	86.9	100.3	-0.64	0.45	2.22	0.03140	0.1613	0.002571
0.0023	526.0	-0.75	-0.78	-0.05721	0.2189	0.001613	0.002517	0.002743	
		0.000	0.000						

RUN 25
PT 12

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1B 2K 3C 4F 5C 5C 7E

VKTS	FPH	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CXP/S	CVR/S
50.6	404.6	-2.8	0.16	-0.47	1.21	0.0	0.030608	-0.000469	0.001625
26.5	0.2887	30.11	500.245	1.28	2.55	3.47	0.000124	0.001546	0.001374
0.1354	0.4492	3.76	17.65	-0.30	0.	-0.9	0.00006	0.004316	0.0047
2102.76	73.0	184.0	176.8	-0.37	2.80	0.80	0.00038	0.3084	0.00384
0.0023	525.7	3.12	3.02	0.12133	0.2408	0.003084	0.002310	0.001546	0.001688
		0.000	0.079						

RUN 25
PT 13

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2K 3C 4F 5C 6C 7J

PKTS	W/OM	THETA	XZP	XLEL	RPC	ALFS,C	CLP/S	CRP/S	CM/S
403.6	403.6	-2.8	0.22	-0.03	1.22	4.0	0.041697	-0.003101	-0.002349
0.2887	0.2887	30.11	598.910	1.28	2.64	4.49	-0.000234	0.001230	0.001549
0.468C	0.468C	4.21	17.81	-0.06	-0.0	-4.3	0.0418	0.05600	0.00318
73.0	73.0	199.9	18.7	-0.62	2.80	5.76	0.00035	0.2691	0.00057
578.4	578.4	4.04	3.89	0.15866	0.1786	3.002691	0.002268	0.001348	0.001995
0.0021	0.0000	0.0000	0.108						

RUN 25
PT 15

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2K 3C 4F 5C 6C 7J

PKTS	W/OM	THETA	XZP	XLEL	RPC	ALFS,C	CLP/S	CRP/S	CM/S
50.2	403.4	-2.8	0.11	-0.03	1.37	4.0	0.062059	-0.004333	-0.001379
26.6	0.2882	30.11	724.035	1.29	4.13	5.37	-0.000426	0.001365	0.000017
0.1348	0.4678	6.17	17.95	0.04	-0.	-4.0	0.0622	0.77183	-0.00501
2103.00	73.0	178.8	174.5	-0.57	4.05	7.38	-0.00020	0.3361	0.00071
0.0023	578.1	3.98	3.84	0.19059	0.2085	0.003391	0.002371	0.001592	0.001740
		0.000	0.162						

RUN 26
PT 16

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1A 2A 3C 4F 5C 6E 7E

PT 14	WKTS	RPM	THETA	XZP	XLFL	RPO	ALFS/C	CLP/S	CKP/S	CPV/S
50.8	403.2	-2.8	0.12	-0.50	1.47	0.0	0.0	0.062820	0.000039	-0.003459
27.0	22905	30.11	785.264	1.28	4.91	5.11	5.11	0.000267	0.002935	0.001393
0.1358	0.4676	7.98	21.50	0.01	-0.	0.4	0.4	0.0628	0.07132	-0.00064
2102.61	73.0	191.8	185.3	-0.50	4.78	-0.74	-0.74	0.00058	0.5726	0.00074
0.0023	527.8	5.26	5.06	0.27275	0.3657	0.005726	0.005726	0.002591	0.002535	0.001929
		0.000	0.267							
PT 18	WKTS	RPM	THETA	XZP	XLFL	RPO	ALFS/C	CLP/S	CKP/S	CPV/S
50.1	434.0	-2.9	0.12	-0.02	1.49	0.0	0.0	0.065296	-0.000157	-0.003266
26.5	0.2875	30.11	777.258	1.28	4.86	5.08	5.08	0.003916	0.002719	0.001288
0.1346	0.4680	7.98	21.80	0.04	-0.	-0.1	-0.1	0.0653	0.07444	0.00216
2103.05	74.0	190.4	178.1	-0.29	4.62	0.27	0.27	0.00453	0.5369	0.00041
0.0023	528.8	4.65	4.48	0.23821	0.3648	0.005395	0.005395	0.002626	0.002715	0.001656
		0.000	0.240							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1B 2A 3C 4F 5C 6F 7E

PT 17	WKTS	RPM	THETA	XZP	XLFL	RPO	ALFS/C	CLP/S	CKP/S	CPV/S
50.6	403.7	-2.8	0.16	-0.02	1.52	0.0	0.0	0.060359	0.000072	-0.001561
26.9	0.2894	30.11	823.342	1.29	5.55	4.80	4.80	-0.000335	0.003354	0.005048
0.1355	0.4682	9.99	27.21	0.30	-0.	0.9	0.9	0.0604	0.06411	-0.00067
2102.73	73.0	191.1	178.1	-0.61	5.28	-1.54	-1.54	-0.00021	0.4185	0.00455
0.0023	528.5	5.35	5.15	0.29024	0.3924	0.006185	0.006185	0.003394	0.003394	0.002794
		0.000	0.289							

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC 21 30 4P 5A 6E 7H

POINT	VKTS	RPM	THETA	X2P	XLEL	PPD	ALFS-C	FLF/S	FRP/S	CRP/S
RUN 47										
PT 19	119.7	378.8	-3.1	-0.58	-1.37	1.45	3.0	0.062861	-0.003499	-0.004176
	46.8	0.4073	30.09	806.068	1.33	5.37	7.25	0.000386	0.001729	0.000601
	0.1799	0.4416	7.37	21.45	0.35	-0.	-3.2	0.3622	0.06701	0.00025
	2081.43	69.0	170.6	166.0	-0.57	4.84	2.99	0.00116	0.4371	-0.00012
	0.0023	456.9	0.000	4.53	0.28438	0.2059	0.004371	0.002804	0.001747	0.002451
				0.287						
PT 20	112.9	379.1	-3.2	-0.58	-1.39	1.45	3.0	0.063338	-0.003437	-0.003805
	46.8	0.4075	30.09	786.019	1.33	5.08	8.10	-0.000701	0.001951	-0.000809
	0.1759	0.4415	7.32	21.51	0.31	-0.	-3.1	0.3634	0.06821	0.00017
	2081.38	70.0	168.0	164.1	-0.61	4.81	2.93	-0.00002	0.3537	-0.00013
	0.0023	456.3	0.000	4.43	0.27157	0.1786	0.003937	0.002478	0.001904	0.002455
				0.288						
PT 22	120.0	376.6	-3.2	-0.58	-1.37	1.50	3.0	0.063411	-0.003973	-0.004107
	46.8	0.4075	30.09	781.222	1.34	4.80	8.28	0.004063	0.001322	0.00030
	0.1800	0.4416	7.82	21.65	0.38	-0.	-3.6	0.0635	0.06018	0.00065
	2081.38	71.0	192.2	195.6	-0.30	0.58	3.38	0.00547	0.3817	0.00017
	0.0023	456.5	5.02	4.83	0.29380	0.1502	0.003812	0.002411	0.001338	0.002746
				0.320						
PT 23	120.0	379.3	-3.2	-0.58	-1.35	1.48	3.0	0.068533	-0.004730	-0.006257
	46.8	0.4078	30.09	760.759	1.35	4.50	8.18	-0.000515	0.001455	-0.004545
	0.1800	0.4413	7.37	21.38	-0.09	-0.	-3.5	0.3687	0.07261	0.00364
	2081.38	71.0	192.2	186.3	-0.42	4.24	3.60	0.00053	0.3674	-0.00540
	0.0023	456.5	0.000	4.36	0.25892	0.1691	0.003674	0.002586	0.001216	0.002111
				0.282						
PT 24	120.2	375.5	-3.1	-0.58	-1.35	1.50	3.0	0.058737	-0.002505	-0.003175
	46.8	0.4382	30.05	819.455	1.34	5.38	7.50	-0.000974	0.001780	0.002104
	0.1801	0.4411	8.02	21.65	0.42	-0.	-2.9	0.0588	0.05681	-0.00017
	2078.55	72.0	192.8	186.3	-0.64	4.71	2.47	-0.00022	0.4447	0.00251
	0.0023	456.8	5.11	4.91	0.31483	0.1850	0.004447	0.002478	0.001833	0.002521
				0.328						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC 21 3C 45 5A 6F 7G

RUN 47 PT 1A		VKTS	RPM	THETA	X2P	XLEL	FPO	ALFS,C	CLP/S	CKE/S	CV/S
120.0	375.0	-3.2	-0.58	-1.36	1.73	2.0	0.076993	-0.001839	0.076993	-0.001839	-0.005244
47.1	0.4083	30.09	918.852	1.34	7.53	7.30	0.000250	0.002508	0.000250	0.002508	0.000717
C.1804	0.4418	11.34	2.56	0.43	-0.	-1.4	0.0770	0.07733	0.0770	0.07733	-0.00085
2081.16	69.0	145.1	162.4	-0.63	6.75	1.54	0.00070	0.00070	0.00070	0.00070	0.00029
0.0023	496.1	6.31	6.06	0.43363	0.3558	0.607574	0.003263	0.003263	0.003263	0.003263	0.002637
		0.000	0.514								

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC 21 3C 4P 5E 6F 7H

RUN 47 PT 21		VKTS	RPM	THETA	X2P	XLEL	FPO	ALFS,C	CLP/S	CKE/S	CV/S
120.0	379.1	-3.2	-0.58	-1.37	1.71	3.0	0.076651	-0.003467	0.076651	-0.003467	-0.005030
46.9	0.4082	30.09	922.314	1.33	7.23	7.31	-0.000654	0.002448	-0.000654	0.002448	0.000576
C.1800	0.4410	11.99	2.65	0.40	-0.	-2.6	0.0767	0.07678	0.0767	0.07678	-0.00055
2081.36	71.0	192.5	187.3	-0.64	6.30	2.94	-0.00006	0.00006	-0.00006	0.00006	0.00004
0.0023	496.2	5.68	5.46	0.39340	0.2867	0.006518	0.003241	0.003241	0.003241	0.003241	0.002451
		0.000	0.473								

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC 21 3D 4B 5A 6D 7E

POINT	VKTS	RPM	THETA	X2P	XLEL	PPO	ALFS,C	CLC/S	CR7/S	CV7/S
RUN 47										
PT 12	119.8	378.4	-2.2	-0.58	-1.33	1.34	0.0	0.048062	0.000007	-0.002905
	47.3	0.4004	30.09	459.099	1.36	1.53	662.39	-0.000347	0.002771	0.000133
	C.1ACR	0.4427	5.06	19.38	0.31	-0.	0.1	0.0681	0.05543	-0.000008
	2CR0.95	65.0	164.7	159.5	-0.52	3.72	-0.07	0.00002	0.0597	0.000364
	0.0023	455.3	1.33	1.23	0.11508	0.0063	0.000557	-0.000378	0.002771	0.002310
			0.000	0.151						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC 21 3D 4P 5A 6E 7E

POINT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLF/S	CR7/S	CV7/S
RUN 47										
PT 13	119.8	377.4	-2.2	-0.58	-1.31	1.49	0.0	0.061735	0.000074	-0.001277
	47.3	0.4095	37.00	659.971	1.37	1.38	16.36	0.000069	0.000076	-0.000117
	C.1ACR	0.4416	8.02	21.52	0.38	-0.	0.4	0.0617	0.06573	-0.000363
	2CR0.95	65.0	165.0	162.1	-0.50	5.00	-0.37	0.000063	0.0553	-0.000310
	0.0023	494.0	5.54	5.33	0.27400	0.1722	0.000553	-0.000074	0.000076	0.000364
			0.000	0.138						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC 21 30 48 5A 6E 7F

POINT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLF/S	CXP/S	CVR/S
PT 1A	120.0	378.4	-2.2	-7.58	-1.34	1.45	1.0	0.063756	-0.003703	-0.007530
	7.3	640.408	30.39	640.408	1.36	3.15	15.16	-0.003750	0.004061	-0.000074
	C.1809	C.4424	8.02	21.47	0.41	-0.	-0.6	0.0033	0.76541	-C.00340
	2080.95	46.0	165.4	162.4	-0.56	4.57	0.60	-0.03007	0.3024	0.03020
	0.0023	455.4	5.08	5.08	0.25247	0.1356	0.003078	0.000079	0.003079	0.007441
			0.070	0.318						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC 21 3F 4E 5A 6D 7E

POINT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLF/S	CXP/S	CVR/S
PT 1I	119.7	378.0	-1.2	-0.31	-1.31	1.34	0.0	0.051306	0.000125	-0.002396
	47.1	0.4062	30.39	638.615	1.36	3.15	15.09	-0.000767	0.003036	-0.000260
	C.1805	C.4423	5.46	15.32	0.52	-0.	0.1	0.0513	0.75863	-0.00012
	2081.05	65.0	183.7	159.7	-0.54	3.77	-0.11	-0.03058	0.2740	0.00013
	0.0023	494.8	4.25	4.09	0.20321	0.1438	0.002750	0.000073	0.003036	0.007521
			0.000	0.190						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1C 2I 3F 49 5A 6D 7E

POINT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS/C	CLP/S	CXP/S	CYP/S
PT 10	112.7	378.9	-0.0	-0.59	-1.32	1.33	0.0	0.058662	-0.000020	-0.001775
	47.2	64073	30.09	651.879	1.35	3.30	11.02	0.001100	0.002750	-0.003564
	6.1907	6.4437	5.56	19.25	0.53	-0.	-0.9	0.0587	0.06585	0.00002
	2081.00	64.0	164.7	159.2	-0.56	3.80	0.07	0.00178	0.3294	-0.00313
	0.0023	495.5	3.51	3.40	0.17096	0.2160	0.003283	0.001559	0.002750	0.002150
			0.000	0.156						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1C 2K 3C 4E 5C 6A 7G

POINT	VKTS	RPM	THETA	X2P	XLEL	PPO	ALFS/C	CLP/S	CXP/S	CYP/S
PT 21	120.0	403.7	-2.8	0.06	-0.02	0.98	7.0	-0.004063	-0.001775	0.001204
	66.4	63832	30.11	1052.930	1.29	-0.25	-0.54	0.002346	0.001703	0.003162
	0.1791	0.2674	-0.13	14.11	-0.01	-0.	-156.3	-0.0040	0.02088	0.00152
	2083.20	76.0	63.6	74.1	-0.07	0.43	1.71	0.00304	0.3150	0.00361
	0.0023	529.4	1.16	1.34	0.09792	0.2182	0.003158	0.002861	0.001909	0.002507
			0.000	0.000						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1C 2K 3C 4F 5C 6A 7C

POINT	VKTS	RPM	THETA	XZP	XLEL	CPO	ALFS,C	CLP/S	CKE/S	CVP/S
115.8	404.5	-2.9	0.16	-0.02	0.57	-2.0	-0.025580	-0.002994	-0.002994	0.002794
46.3	0.3819	30.11	1051.065	1.29	-0.20	-2.85	-0.000533	0.002737	0.002737	0.006276
0.1749	0.4684	-0.13	1.05	-0.02	0.	-173.3	-0.00257	-0.002716	-0.002716	0.00210
2083.25	76.0	75.1	92.1	-0.03	0.43	2.90	0.07171	0.3006	0.3006	0.00770
0.0073	523.5	1.01	1.00	0.07253	0.2286	0.003006	0.003306	0.002516	0.002516	0.003536
		0.000	0.000							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1C 2K 3C 4F 5C 6A 7C

POINT	VKTS	RPM	THETA	XZP	XLEL	RPO	ALFS,C	CLP/S	CKE/S	CVP/S
115.8	404.1	-2.8	0.19	-0.02	0.57	0.0	-0.014649	-0.002007	-0.002007	0.002770
46.4	0.3822	30.11	1051.376	1.29	-0.20	-1.81	0.000742	0.002421	0.002421	0.004517
0.1790	0.4683	-0.13	14.05	-0.01	0.	-172.2	-0.0146	0.00871	0.00871	0.00201
2083.25	75.0	72.2	92.5	0.00	0.40	1.84	0.00257	0.3584	0.3584	0.00599
0.0073	523.0	1.76	1.73	0.12581	0.2334	0.003584	0.003061	0.002421	0.002421	0.003147
		0.000	0.000							

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC	2K	3C	4F	5C	6A	7J										
RUN 25							VKTS	RPM	THETA	X2P	XLEL	RPD	ALFS,C	CLP/S	CYP/S	CVP/S
PT 22							OPSF	V/OK	BAR	VJR	XTEL	PTRT	L/D	CMV/S	CM7/S	CM8/S
							MTUN	PTC	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	FM
							PST	TEMPC	TEMP	TEMP	XP	PT59T	FE	CPH100	CPH	CPH
							FMU100	WC	WP	WP	CMUR100	CP5100	CP/S	CP/S	CP/S	CP/S
								CPCR100	CPPR100							
							115.9	-2.9	0.13	-0.03	0.58	4.0	0.005780	-0.002306	-0.002306	0.000208
							46.4	30.11	1051.687	1.29	-0.18	0.83	0.003433	0.001224	0.001224	0.001937
							0.1790	-0.28	14.13	-0.94	-0.	-21.8	0.0059	0.02207	0.02207	0.0310
							2083.22	82.3	92.8	-0.09	0.45	7.22	0.00539	0.3121	0.3121	0.03107
							0.0023	1.87	1.83	0.13356	0.1792	0.003121	0.002669	0.001359	0.001359	0.002235
								0.000	0.070							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IC	3F	4E	5A	6C	7D											
RUN 47						VKTS	KPM	THETA	X2P	XLEL	RPD	ALFS,C	CLP/S	CYP/S	CVP/S	
PT 2						OPSF	V/OR	BAR	VJR	XTEL	PTRT	L/D	CMV/S	CM7/S	CM8/S	
						MTUN	TIPM	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	FM	
						PST	TEMP	TEMPC	TEMP	XP	PT59T	FE	CPH100	CPH	CPH	
						FMU100	CMFGR	WC	WP	CMUR100	CP5100	CP/S	CP/S	CP/S	CP/S	
								CPCR100	CPPR100							
							112.8	-0.0	-0.06	-1.35	1.27	-1.0	0.045007	0.000308	0.000308	-0.002107
							47.4	30.09	595.911	1.36	2.70	13.21	0.003878	0.002879	0.002879	-0.001494
							0.1811	4.25	13.29	0.54	-0.	0.5	0.05363	0.05363	0.05363	0.00039
							2080.81	163.7	157.8	-0.57	3.17	-0.38	0.00065	0.2437	0.2437	-0.03155
							0.0023	2.01	7.54	0.10395	0.1848	0.002437	0.001316	0.002507	0.002507	0.002334
								0.000	0.380							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
10 2K 3E 4E 5A 6D 7E

PT	10	2K	3E	4E	5A	6D	7E	VRMS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLR/S	CRP/S	CVR/S
PT 47	119.8	403.0	-0.0	-0.07	-1.32	1.34	0.0	0.050539	0.000093	0.000113	-0.000133	0.050539	0.000113	0.000133	0.000133	-0.000133	-0.000133
	47.3	0.3833	30.09	610.594	1.36	2.85	17.56	0.000093	0.000093	0.000093	0.000093	0.000093	0.000093	0.000093	0.000093	0.000093	0.000093
	0.1800	0.4720	5.41	19.39	0.55	-0.	-0.1	0.0565	0.0565	0.0565	0.0565	0.0565	0.0565	0.0565	0.0565	0.0565	0.0565
	2080.88	64.0	164.1	158.2	-0.51	3.85	0.11	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053
	0.0023	527.6	4.33	4.16	0.17344	0.1674	0.007678	0.001175	0.001175	0.001175	0.001175	0.001175	0.001175	0.001175	0.001175	0.001175	0.001175
			0.000	0.161													

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
10 21 3R 4R 5A 6D 7G

PT	10	21	3R	4R	5A	6D	7G	VRMS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLR/S	CRP/S	CVR/S
PT 47	165.7	381.3	-3.6	-0.57	-1.37	1.35	2.0	0.011493	0.011493	0.011493	-0.00086	0.011493	0.011493	-0.00086	0.011493	-0.00086	-0.001156
	85.5	0.5604	30.05	656.434	1.35	3.34	10.73	-0.000777	-0.000777	-0.000777	0.002563	0.002563	0.002563	0.002563	0.002563	0.002563	0.002563
	0.2463	0.4395	5.07	19.15	-0.17	-0.	-1.5	0.0335	0.0335	0.0335	0.04175	0.04175	0.04175	0.04175	0.04175	0.04175	0.04175
	2039.86	84.0	155.2	150.3	-0.54	3.67	0.40	0.00043	0.00043	0.00043	0.2560	0.2560	0.2560	0.2560	0.2560	0.2560	0.2560
	0.0022	495.1	3.63	3.51	0.18577	0.1338	0.002560	0.001691	0.001691	0.001691	0.002506	0.002506	0.002506	0.002506	0.002506	0.002506	0.002506
			0.000	0.172													

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 10 21 34 54 60 70

POINTS	VRTS	CPSE	MTUN	PST	RHO100	PPM	V/DR	TIPP	TEMP	OMEGA	THE TA	RAR	PTC	TEMPC	WC	CPC100	X2P	VJR	PTR	TEMP	WP	CPPK100	XLEL	XTEL	XR	XP	C,MUR100	RPO	PTPT	PT59L	PT59T	CPS100	ALFS,C	L/D	ANGX/L	FE	CP/S	CLR/S	CW/S	CT	CMRH	CPS/S	CCR/S	CM7/S	CTM	CP100	CO/S	CVR/S	CMX/S	CM	CI 00T	CO/S
RUN 7	165.1	383.0									-3.9	30.05	6.27	155.9	5.47	0.000	-0.57	700.650					1.56	1.34	-0.24	-0.37	0.24908	1.37	1.86	-0.	4.06	0.1898	2.0	6.30	-4.1	1.26	0.004005	0.034972	0.001309	0.0390	0.00712	0.001773	-0.002800	0.001840	0.05805	0.4905	0.001767	-0.001067	-0.002049	0.00164	-0.00048	0.003141
PT 25	84.9	0.5604									30.05	6.27	153.3	5.25	0.000	0.273						1.58	1.34	-0.11	-0.69	0.23902	1.35	4.01	-0.	3.77	0.2369	2.0	4.92	-3.2	0.74	0.004087	0.028500	-0.000775	0.00098	0.003166	-0.001424	0.002650	0.02524	0.4087	0.002660	0.001085	0.000775	0.00061	0.00298	0.003457		
PT 10	105.0	381.9									-3.9	30.05	164.1	4.30	0.000	0.204	-0.57	718.521					1.58	1.36	-0.39	-0.63	0.30855	1.31	4.05	-0.	4.17	0.2254	2.0	6.20	-3.0	0.90	0.004472	0.037130	-0.001663	0.00374	0.00016	0.002210	0.06097	0.4472	0.002150	-0.000516	-0.001674	0.00068	-0.00145	0.003076		
PT 7	85.5	0.5581									30.03	6.28	153.9	5.41	0.000	0.237	-0.57	715.149					1.36	1.36	-0.39	-0.63	0.30855	1.31	4.05	-0.	4.17	0.2254	2.0	6.20	-3.0	0.90	0.004472	0.037130	-0.001663	0.00374	0.00016	0.002210	0.06097	0.4472	0.002150	-0.000516	-0.001674	0.00068	-0.00145	0.003076		

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 10 21 34 48 5E 6D 7I

RUN 48 PT 6	VKTS QPSF MTUN PST RHU100	PPM V/DK TIPM TEMP OMEGA	THETA RAR PTC TEMPC WC CPCR100	X2P VJR PTP TEMPP WP CPR100	XLEL XTEL XR XP CMUR100	PPO PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLR/S CMY/S CT CMPH CPI/S	CXR/S CMT/S CTH CPR100 CQS	CYR/S CMZ/S CM CLPM COC/S
	165.2	380.0	-4.2	-0.56	1.55	1.31	3.5	0.042576	-0.003265	-0.000334
	84.7	0.5608	30.03	719.996	1.36	4.09	6.56	0.000752	0.002007	-0.000544
	0.2451	0.4371	5.82	18.55	-0.04	-0.	-4.4	0.00427	0.00468	0.00066
	2030.29	86.0	158.2	157.2	-0.63	4.32	1.47	0.00214	0.3414	-0.00035
	0.0022	497.4	5.16	4.96	0.29125	0.1810	0.003910	0.003408	0.001940	0.003514
			0.000	0.224						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 10 21 38 48 5E 6F 7G

RUN 48 PT 3	VKTS QPSF MTUN PST RHU100	RPM V/DK TIPM TEMP OMEGA	THETA RAR PTC TEMPC WC CPCR100	X2P VJR PTP TEMPP WP CPR100	XLEL XTEL XR XP CMUR100	RPO PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLR/S CMY/S CT CMPH CPI/S	CXR/S CMT/S CTH CPR100 CQS	CYR/S CMZ/S CM CLPM COC/S
	166.0	379.4	-3.9	-0.57	1.59	1.60	2.0	0.053128	-0.002936	-0.001160
	85.7	0.5641	30.03	934.922	1.36	7.27	6.98	-0.001118	0.002590	-0.000574
	0.2467	0.4373	10.86	27.70	0.29	-0.	-3.2	0.0532	0.06909	0.00108
	2038.25	84.0	196.1	194.8	-0.79	6.34	1.30	-0.00011	0.7433	-0.000997
	0.0022	496.6	7.54	7.23	0.55174	0.2638	0.007833	0.003944	0.002554	0.003830
			0.000	0.590						
	165.9	379.9	-3.9	-0.57	1.57	1.73	2.0	0.059027	-0.003215	-0.001222
	85.4	0.5629	30.03	956.290	1.35	8.49	7.10	-0.001034	0.002549	-0.000705
	0.2463	0.4375	13.47	24.55	0.35	-0.	-3.1	0.0501	0.07477	0.00115
	2038.54	85.0	187.6	197.4	-0.82	7.14	1.43	-0.00012	0.0024	-0.00034
	0.0022	497.3	9.04	8.67	0.70415	0.2871	0.009924	0.004235	0.002923	0.004287
			0.000	0.817						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1) 2I 3A 4R 5E 5F 7I

RUN #A	VKTS	KPM	THETA	XZP	XLEL	RPO	ALFS,C	CLR/S	CYP/S	CVP/S
PT 7	165.2	379.1	-4.5	-0.56	1.58	1.59	3.5	0.056817	-0.004704	-0.001640
	84.1	0.5618	30.03	534.166	1.35	7.11	7.30	0.000345	0.001770	-0.000668
	C.2443	0.4349	10.95	27.49	0.15	-0.	-4.7	0.0570	0.07882	0.00123
	2035.83	85.0	204.3	272.0	-0.70	6.07	2.11	0.03167	0.7034	-0.00061
	0.0022	456.2	7.62	7.31	0.56319	0.1733	0.007034	0.003361	0.001735	0.003361
			0.000	0.558						
PT 8	165.4	379.1	-4.5	-0.56	1.57	1.71	3.5	0.061802	-0.005274	-0.001931
	84.2	0.5625	30.03	970.056	1.35	7.86	7.27	0.000422	0.001825	-0.000378
	0.2444	0.4345	13.16	28.17	0.25	-0.	-4.9	0.0620	0.08731	0.00149
	2039.76	90.0	183.5	201.0	-0.74	6.85	2.36	0.00148	0.8408	-0.00030
	0.0022	496.3	8.78	8.42	0.67439	0.1817	0.008408	0.004294	0.001802	0.004294
			0.000	0.788						
PT 10	165.2	380.8	-4.5	-0.56	1.59	1.59	3.5	0.057772	-0.005530	-0.003018
	83.9	0.5553	30.03	927.817	1.36	7.28	7.13	0.003740	0.001024	-0.000185
	0.2439	0.4360	11.20	22.51	0.17	-0.	-5.5	0.0580	0.08638	0.00159
	2040.12	91.0	154.2	181.1	-0.52	6.22	2.50	0.00578	0.7178	-0.00058
	0.0022	498.5	8.38	8.04	0.61118	0.1440	0.007128	0.004103	0.001011	0.003674
			0.000	0.631						
PT 11	165.4	380.1	-4.5	-0.56	1.58	1.61	3.5	0.057393	-0.003957	-0.000495
	84.0	0.5611	30.03	943.278	1.36	7.63	6.97	-0.003773	0.002723	-0.001351
	0.2440	0.4349	11.20	22.81	0.11	-0.	-3.9	0.0575	0.08394	0.00045
	2040.02	92.0	149.7	179.1	-0.86	6.40	1.78	-0.00303	0.7734	-0.00106
	0.0022	497.6	7.55	7.24	0.56306	0.2397	0.007734	0.004195	0.002635	0.004433
			0.000	0.586						
PT 12	165.4	377.7	-4.5	-0.56	1.58	1.60	3.5	0.052764	-0.005486	-0.000915
	84.0	0.5647	30.03	928.415	1.36	7.33	6.45	0.003044	0.001214	0.001413
	0.2440	0.4321	11.05	22.62	0.33	-0.	-5.9	0.0530	0.08279	0.00225
	2040.02	92.0	150.0	178.4	-0.67	6.40	2.43	0.00442	0.7153	0.00175
	0.0022	494.4	8.07	7.74	0.59984	0.1520	0.007153	0.004263	0.001310	0.004053
			0.000	0.627						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

10 21 30 40 50 60 70

PKTS	OPSF	MTUN	PST	RH0100	RPM	V/OR	TIPM	TIMP	OMEG00	THETA	BAR	PTC	TEMPC	MC	CPCR100	X2P	VJR	PTP	TEMP	WP	CPPP100	XLEL	XTEL	XR	XP	CMUR100	RPO	PTRT	PT59L	PT59T	CPS100	ALFS,C	L/D	ANGX/L	FF	CP/S	CLP/S	CMY/S	CT	CMPH	CPH/S	CRP/S	CMZ/S	CTH	CPR100	CQ/S	CYP/S	CMK/S	CH	CI 00H	CON/S
165.6	8.0	0.2440	2030.00	0.0022	380.1	0.5617	0.4345	93.0	497.6	-4.5	30.03	11.00	146.4	7.95	0.000	-0.56	523.809	22.73	177.1	7.62	0.611	1.57	1.36	-0.13	-0.64	0.58108	1.60	7.26	-0.	6.33	0.2074	3.5	7.77	-4.2	2.20	0.007468	0.066782	-0.001700	0.0670	0.00013	0.004256	-0.004505	0.002030	0.0768	0.001724	-0.004966	0.00052	6.00052	-0.00578	0.00907	

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

10 21 30 40 50 60 70

PKTS	OPSF	MTUN	PST	RH0100	RPM	V/OR	TIPM	TIMP	OMEG00	THETA	BAR	PTC	TEMPC	MC	CPCR100	X2P	VJR	PTP	TEMP	WP	CPPP100	XLEL	XTEL	XR	XP	CMUR100	RPO	PTRT	PT59L	PT59T	CPS100	ALFS,C	L/D	ANGX/L	FE	CP/S	CLP/S	CMY/S	CT	CMPH	CPH/S	CRP/S	CMZ/S	CTH	CPR100	CQ/S	CYP/S	CMK/S	CH	CI 00H	CON/S
165.5	8.9	0.2473	2035.21	0.0022	380.0	0.5615	0.4404	78.0	497.4	-3.1	30.05	5.18	152.3	3.47	0.000	-0.57	704.131	19.12	148.0	3.36	0.163	-1.38	1.32	0.35	-0.87	0.19005	1.35	3.95	-0.	3.73	0.2530	2.0	6.52	-1.4	0.37	0.003875	0.034757	-0.00020	0.0348	0.00075	0.002838	-0.00025	0.002651	0.04825	0.3875	0.002408	-0.001194	-0.001738	-0.00039	-0.00006	0.002914

BUN +7
PT 25

PT 26

PKTS	OPSF	MTUN	PST	RH0100	RPM	V/OR	TIPM	TIMP	OMEG00	THETA	BAR	PTC	TEMPC	MC	CPCR100	X2P	VJR	PTP	TEMP	WP	CPPP100	XLEL	XTEL	XR	XP	CMUR100	RPO	PTRT	PT59L	PT59T	CPS100	ALFS,C	L/D	ANGX/L	FE	CP/S	CLP/S	CMY/S	CT	CMPH	CPH/S	CRP/S	CMZ/S	CTH	CPR100	CQ/S	CYP/S	CMK/S	CH	CI 00H	CON/S
165.6	8.9	0.2469	2035.51	0.0022	381.1	0.5604	0.4405	81.0	458.8	-3.1	30.05	5.02	151.3	3.54	0.000	-0.57	568.048	18.92	159.0	3.42	0.160	-1.37	1.34	0.22	-0.75	0.15631	1.34	2.42	-0.	3.62	0.0893	2.0	12.45	-1.9	0.52	0.003875	0.034757	-0.000529	0.0343	0.00050	0.002838	-0.00111	0.002798	0.05100	0.1763	0.002711	-0.00052	-0.002144	-0.00004	-0.00027	0.009211

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

10 21 30 49 5A 6D 7M

VP/KS	RPM	THETA	XZP	XLEL	RPU	ALFS,C	CLP/S	CMZ/S	CY/S
OPSF	V/DR	RAR	VJR	XTEL	PTRT	L/D	CMY/S	CMZ/S	CMY/S
MTUN	TJPP	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CH
PST	TEMP	TEMPC	TEMP	XP	PT50T	FE	CPH	CPH	CL*FM
PHC100	OMEGA	MC	MP	CMUR100	CPS100	CP/S	CPH/S	CPH/S	CON/S
		CPCR100	CPPR100						
165.4	381.5	-3.2	-0.57	-1.38	1.34	3.0	0.040301	-0.00245A	-0.002176
85.7	0.5591	30.05	634.523	1.33	3.09	18.30	0.004577	0.001624	-0.001590
0.2465	0.4409	5.57	19.03	0.47	-0.	-3.5	0.0604	0.05157	0.000034
2038.72	81.0	153.6	150.3	-0.46	3.96	1.11	0.00653	0.1047	-0.00070
0.0022	495.4	3.94	3.80	0.19362	-0.0143	0.001087	0.001022	0.001539	0.002704
		0.000	0.181						

RUN 47
PT 27

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

10 29 3A 4B 5E 6F 7G

VP/KS	RPM	THETA	XZP	XLEL	RPU	ALFS,C	CLP/S	CMZ/S	CY/S
OPSF	V/DR	RAR	VJR	XTEL	PTRT	L/D	CMY/S	CMZ/S	CMY/S
MTUN	TJPP	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CH
PST	TEMP	TEMPC	TEMP	XP	PT50T	FE	CPH	CPH	CL*FM
PHC100	OMEGA	MC	MP	CMUR100	CPS100	CP/S	CPH/S	CPH/S	CON/S
		CPCR100	CPPR100						
165.9	403.5	-3.9	-0.57	1.57	1.71	2.0	0.056285	-0.003090	-0.002250
65.3	0.5302	30.03	969.909	1.35	7.89	6.47	-0.001289	0.002829	0.003001
0.2461	0.4442	12.92	24.21	0.23	-0.	-3.2	0.0564	0.07498	0.00113
2038.64	86.0	186.9	198.4	-0.72	6.88	1.56	-0.00007	0.8257	-0.00042
0.0022	528.2	8.55	8.20	0.57574	0.2571	0.008257	0.004183	0.002827	0.004940
		0.000	0.632						

RUN 48
PT 28

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

10 20 30 40 50 60 70

RUN #	PT	VKTS	QPSF	MTUM	PST	RHC100	RPM	V/OR	TIPM	TFMP	OMEGA	THETA	RAR	PTC	TFMPC	MC	CPCP100	X2P	VJR	PTP	TEMP	WP	CPPR100	XLEL	XTEL	XR	XP	CHUR100	PPO	PTRT	PT59L	PT59T	CPS100	ALFS+C	L/D	ANGX/L	FE	CP/S	CLP/S	CMV/S	CT	CMPH	CPN/S	CKR/S	CMZ/S	CTH	CPI100	CO/S	CMV/S	CM	CLSM	CON/S	
		165.5	85.7	0.2444	2039.75	0.0022	404.5	0.5276	0.4632	91.0	525.5	-4.5	30.03	12.91	159.0	8.57	0.000	-0.56	589.786	23.98	291.3	3.60	0.650	1.57	1.35	0.07	-0.61	0.61863	1.69	8.28	-0.	6.61	0.2042	3.5	6.52	-4.9	2.52	0.007874	0.057553	0.000367	0.0577	0.03115	0.004706	-0.004959	0.001758	0.08028	0.7874	0.001779	-0.002795	0.000394	0.00144	-0.00019	0.003943

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

10 20 30 40 50 60 70

RUN #	PT	VKTS	QPSF	MTUM	PST	RHC100	RPM	V/OR	TIPM	TEMP	OMEGA	THETA	RAR	PTC	TFMPC	MC	CPCP100	X2P	VJR	PTP	TEMP	WP	CPPR100	XLEL	XTEL	XR	XP	CMUR100	RPO	PTRT	PT59L	PT59T	CPS100	ALFS+C	L/D	ANGX/L	FE	CP/S	CIP/S	CMV/S	CT	CMRM	CPN/S	CKR/S	CMZ/S	CTH	CPI100	CO/S	CMV/S	CM	CLSM	CON/S	
		181.0	95.8	0.2620	2022.52	0.0021	32.1	7.2688	0.0360	114.0	42.0	-3.8	29.95	9.91	177.1	6.40	0.000	-0.54	821.445	71.79	183.3	6.14	807.491	0.45	1.32	0.29	-0.55	61.12873	1.55	5.29	-0.	4.42	-24.2079	2.0	2275.93	-0.2	0.10	5.733047	13.213327	0.765372	13.2066	0.67248	-1.687546	-0.039100	-0.184166	14.33725	573.3047	-0.183956	0.745705	0.002789	-0.62705	0.28904	-1.625423
		180.6	55.5	0.2615	2022.85	0.0021	32.0	7.2785	0.0359	114.0	41.9	-3.8	29.95	10.72	156.9	7.64	0.000	-0.54	852.726	22.84	182.4	7.32	1065.662	-0.03	1.37	0.30	-0.60	76.09291	1.63	5.81	-0.	4.79	-27.3639	246.35	-0.4	0.25	7.471605	14.031581	0.630183	14.0267	0.53754	-1.533548	-0.044555	-0.171019	15.73511	747.1604	-0.175871	0.861914	-0.162071	-0.35571	0.27000	-1.6435781	

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2A 3B 4R 5E 6D 7G

PT	VKTS	KPH	THETA	X2P	XLEL	PPD	ALFS,C	CLP/S	CKE/S	CYR/S
	CPSF	V/OR	BAR	VJR	XTEL	PTRT	L/D	CMY/S	CMZ/S	CMX/C
	MTOH	TIPM	PTC	PTP	XR	PT59L	ANGX/L	CT	CTM	CM
	PST	TEMP	TEMP	TEMP	XP	PT59T	FE	CPMH	CP=100	CL=EM
	RMO100	CMEGAR	WC	WP	CMUR100	CP5100	CP/S	CON/S	CON/S	CON/S
			CPCR100	CPPR100						
RUN 41										
PT 3	192.5	30.5	-3.7	-0.54	1.58	1.33	2.0	12.1R7659	0.330231	0.660224
	102.4	7.7047	29.95	678.289	1.31	3.50	-35.45	0.448972	0.017468	-0.201480
	0.2687	0.0349	5.07	18.61	-0.47	-0.	1.6	12.1638	13.52938	-0.75520
	2017.90	56.0	167.3	160.8	-0.23	2.92	-0.75	0.31597	303.7517	0.06373
	0.0021	40.0	4.37	4.20	37.03247	-10.3120	3.037518	-4.034699	0.007295	-3.924795
			0.000	356.488						
PT 4	181.5	30.3	-3.7	-0.54	1.57	1.34	2.0	12.614659	0.309073	0.424509
	57.9	7.7122	29.95	678.572	1.32	3.48	-38.81	0.532228	-0.017104	-0.500562
	0.2651	0.0344	5.21	18.76	-0.48	-0.	1.4	12.5062	14.67443	-0.74913
	2020.37	104.0	170.9	165.4	-0.09	2.95	-0.73	0.55853	297.7677	-0.21998
	0.0021	39.7	4.15	4.00	36.23123	-12.3392	2.573679	-3.997950	-0.034562	-3.504121
			0.000	402.274						
PT 5	181.3	30.1	-3.8	-0.54	1.58	1.34	2.0	12.887529	0.246687	0.459545
	97.6	7.7625	29.95	671.005	1.32	3.38	-49.25	0.498570	-0.012633	-0.517002
	0.2646	0.0341	4.80	18.79	-0.52	-0.	1.1	12.8711	14.70406	-0.69631
	2020.75	105.0	172.6	167.0	-0.02	2.84	-0.58	0.54722	247.0527	-0.27001
	0.0021	39.4	3.46	3.34	30.39117	-11.6458	2.470527	-3.572714	-0.030464	-3.486351
			0.000	346.709						
PT 6	191.4	30.7	-3.7	-0.54	1.57	1.32	2.0	11.236169	0.194077	0.677242
	97.2	7.6132	29.95	665.215	1.32	3.30	-51.23	0.871871	-0.059364	0.124873
	0.2640	0.0347	4.95	18.46	0.39	-0.	1.0	11.2226	13.70063	-0.58610
	2021.12	108.0	173.9	169.0	-0.12	2.71	-0.47	0.96031	255.8717	0.47549
	0.0021	40.2	3.96	3.81	33.25986	-19.2297	2.559717	-2.864080	-0.091647	-2.765735
			0.000	354.058						
PT 7	181.5	30.5	-3.7	-0.54	1.57	1.32	2.0	11.681955	0.169372	0.689772
	57.0	7.6805	29.95	672.142	1.31	3.37	-61.37	0.655700	-0.052020	0.071065
	0.2637	0.0343	5.05	18.59	0.14	-0.	0.8	11.6710	13.78149	-0.57603
	2021.33	110.0	169.5	169.5	-0.37	2.76	-0.40	0.77056	259.9006	0.47450
	0.0021	39.9	4.34	4.17	37.48160	-16.9177	2.989009	-2.742762	-0.089477	-2.622663
			0.000	407.911						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IE 2A 3A 4A 5E 6E 7G

KUN 3A PT 30	VRYS			RPM			TETA			X2P			XLEL			KPD			ALFS.C			CLP/S			CXU/S			CYR/S																							
	WPSF	WTUN	PST	V/UP	TIPP	OMEGAR	RAR	PTC	TEMPC	MC	CPCR100	VJR	PTP	XP	XP	CMUFI00	PTRT	PTSL	PTST	CPST100	L/N	ANGX/L	FE	CP/S	CMY/S	CTH	CPR100	CLM	CMZ/S	CMY/S	CTH	CPR100	CLM	CMZ/S																	
180.1	56.7	0.2626	2032.95	29.7	7.8277	0.0335	-4.2	30.11	7.86	182.7	6.03	0.0021	38.8	0.000	0.57	785.741	20.40	178.1	5.78	793.864	1.56	1.33	-0.40	-0.60	63.30095	1.44	4.82	-0.0	3.86	-30.0267	6.105184	2.0	138.59	0.33	6.105184	14.808956	0.163555	14.8050	0.20475	-1.183600	-0.144906	-0.267340	16.36354	10.5183	-0.285458	0.702378	-0.523804	-0.37201	0.02139	-1.168791	
180.0	56.6	0.2624	2033.04	25.7	7.8237	0.0335	-4.2	30.11	7.61	182.4	5.99	0.0021	38.8	0.000	-0.57	752.399	20.32	178.1	5.74	780.412	1.55	1.33	-0.41	-0.59	63.38394	1.44	4.92	-0.0	3.99	-24.3485	6.224710	2.0	105.03	-0.7	0.30	6.224710	14.588149	0.113363	14.5852	0.1781	-0.872177	-0.170021	-0.204674	16.83358	622.4709	-0.222142	0.706107	-0.475457	-0.33920	0.00707	-0.846830
180.2	56.7	0.2626	2032.95	25.7	7.8346	0.0335	-4.2	30.11	7.51	179.1	5.42	0.0021	38.8	0.000	-0.57	788.037	20.23	179.1	5.21	701.572	1.55	1.33	-0.43	-0.52	57.24068	1.43	4.85	-0.0	3.86	-27.4460	5.534676	2.0	94.97	-0.7	0.44	5.534676	14.722890	0.242913	14.7706	0.26579	-0.777988	-0.150059	-0.239194	16.97343	553.4675	-0.262659	0.645253	-0.476543	-0.37388	-0.05640	-0.346088

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2A 3A 4E 5C 6F 7G

RUN 41 PT 11	VRYS OPSF MTUN PST RMD100	KPM V/DK TIPM TEMP OMEGAR	THETA RAR PTC TEMPC WC CPCR100	XZP VJR PTP TEMP WP CPPR100	XLEL XTEL XR XP CMUR100	KPD PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLP/S CMY/S CTH CPR100 COPS	CPX/S CMY/S CTH CPR100 COPS	CVB/S CMY/S CTH CPR100 COPS
	190.4	30.9	-3.8	0.00	0.38	1.62	2.0	14.844907	-0.218177	0.644592
	95.1	7.5772	29.95	848.913	1.32	5.76	80.68	0.443583	-0.128123	-0.023140
	C.2610	0.0347	10.12	27.80	0.13	-0.	-0.8	14.4435	17.20471	-C.30004
	2023.20	115.0	152.9	181.4	-0.48	4.89	0.54	0.56062	790.0642	0.25113
	C.0021	40.5	7.31	7.00	77.76453	-25.7232	7.900643	-0.773312	-0.128953	-0.594934
			0.000	1126.557						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2A 3A 4E 5E 6D 7G

RUN 41 PT 11	VRYS OPSF MTUN PST RMD100	KPM V/DK TIPM TEMP OMEGAR	THETA RAR PTC TEMPC WC CPCR100	XZP VJR PTP TEMP WP CPPR100	XLEL XTEL XR XP CMUR100	RPD PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLP/S CMY/S CTH CPR100 COPS	CPX/S CMY/S CTH CPR100 COPS	CVB/S CMY/S CTH CPR100 COPS
	191.5	30.2	-3.7	0.06	1.50	1.34	2.0	12.002253	0.225140	0.856497
	So.0	7.7578	29.95	687.515	1.32	3.55	-49.62	0.055531	0.018971	-0.056462
	0.2635	0.0360	5.35	19.83	-0.45	-0.	1.1	11.9941	13.65701	-0.64412
	2021.47	111.0	171.9	170.9	-0.58	2.54	-0.53	0.07302	301.8870	0.50505
	0.0021	35.5	4.00	1.85	36.18666	-13.0955	3.018871	-3.216351	0.016912	-1.068483
			0.000	406.625						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2A 3B 4E 5F 6E 7G

PUN 3A	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLR/S	CRP/S	CVR/S
PT 33	180.1	29.7	-4.2	0.01	1.56	1.45	2.0	14.458443	-0.216564	0.653108
	50.5	7.8787	30.11	796.646	1.33	4.95	78.21	-0.007250	-0.244305	-0.523913
	C-2624	C-0335	7.76	20.49	-0.48	-0.	-0.9	14.4572	16.66170	-0.20916
	2033.09	107.0	181.4	179.1	-0.57	3.99	0.50	0.15581	582.4250	0.03261
	0.0021	36.8	5.57	5.35	59.33665	-24.8104	5.824752	-0.475693	-0.243022	-0.491511
			0.000	745.445						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2A 3B 4E 5E 6F 7G

RUN 41	VKTS	RPM	THETA	X7P	XLEL	RPO	ALFS,C	CLR/S	CRP/S	CVR/S
PT 12	179.7	30.9	-3.8	0.00	1.33	1.61	2.0	14.673603	-0.223049	0.604685
	54.2	7.5091	29.95	854.936	1.32	5.85	75.68	0.396377	-0.081386	0.070766
	0.2597	0.0346	10.56	22.68	0.11	-0.	-0.9	14.6725	17.40544	-0.20920
	2024.11	116.0	153.3	182.4	-0.50	4.91	0.55	0.65501	836.6719	0.23785
	0.0020	40.4	7.54	7.22	81.19801	-22.5676	8.366719	-0.600477	-0.079991	-0.442687
			0.000	1159.602						

DATA II. THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1F 2A 3C 4F 5E 6A 7C

PTS	VKTS	RPM	THETA	X2P	XLEL	PPN	ALFS,C	CLP/S	CXR/S	CV0/S
180.2	25.7	-3.0	-0.57	1.56	1.44	2.0	15.004930	0.09515P	0.09515P	0.450739
50.9	789.876	30.11	789.876	1.33	4.90	-135.43	-0.007536	-0.035037	-0.035037	-0.503946
6.2628	6.0735	7.71	23.33	-0.28	-0.	0.4	14.9075	17.11620	17.11620	-0.41876
2032.75	106.0	145.0	176.5	-0.71	3.56	-0.72	0.04769	622.4073	622.4073	-0.08588
0.0021	38.8	5.91	5.67	62.39030	-12.2507	6.224074	-2.037568	-0.053468	-0.053468	-7.864560
		0.000	770.409							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1F 2A 3C 4F 5E 6A 7C

PTS	VKTS	RPM	THETA	X2P	XLEL	PPN	ALFS,C	CLP/S	CXR/S	CV0/S
180.3	33.9	-3.1	-0.04	1.08	0.96	2.0	4.502704	0.261383	0.261383	0.506636
95.4	6.8583	29.98	1082.034	1.28	-0.11	-17.87	0.863765	-0.005013	-0.005013	0.034965
6.2613	0.0381	-0.19	13.57	-0.00	0.	3.3	4.4909	7.4194C	7.4194C	-0.41837
2025.04	113.0	133.3	125.2	0.06	-0.43	-0.79	0.65619	256.4854	256.4854	0.75070
0.0021	44.4	1.79	1.75	20.50919	6.4387	2.566855	-1.981161	-0.066699	-0.066699	-2.010238
		0.000	0.000							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

RUN 39 PT 25	VKTS QMSF MTUN PST RHQ100	FPM V/OP TIPM TEMP OMEGAR	TETA RAR PTC TEMPC WC CPCR100	X2P VJR PTP TEMP WP CPR100	XLEL XTEL XR XP CMUR100	RPO PRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLR/S CMY/S CT CMB CPS/S	CXP/S CM7/S CTH CPR100 CPS	CVR/S CMV/S CH CLPH CND/S
	190.1	80.0	-4.2	-0.57	1.55	1.44	2.0	1.911575	-0.00A132	0.065375
	57.1	2.9032	30.11	808.924	1.31	5.12	-909.69	0.068228	-0.023509	-0.101751
	0.2631	0.0906	7.46	20.31	-0.01	-0.	-0.3	1.4108	2.07437	-0.05510
	2032.55	104.0	184.7	143.0	-0.60	3.88	0.14	0.06032	29.8643	-0.01670
	0.0721	104.7	5.73	5.50	8.49310	-2.9389	0.258643	-0.087186	-0.077115	-0.094913
			0.030	39.272						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IL 29 3A 4P 5E 6F 7G	VKTS QMSF MTUN PST RHQ100	PPM V/OP TIPM TEMP OMEGAR	TETA RAR PTC TEMPC WC CPCR100	X2P VJR PTP TEMP WP CPR100	XLEL XTEL XP XP CMUR100	RPO PRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLP/S CMY/S CT CMB CPS/S	CXP/S CM7/S CTH CPR100 CPS	CVR/S CMV/S CH CLPH CND/S
	190.3	60.0	-4.2	-0.57	1.56	1.59	2.0	1.974484	-0.029873	0.075948
	57.1	2.9065	30.11	881.157	1.33	6.25	101.38	0.024203	-0.017809	-0.070058
	0.2632	0.0906	10.03	27.51	0.20	-0.	-0.8	1.9743	2.25130	-0.03005
	2032.51	104.0	190.2	189.5	-0.78	5.09	0.48	0.03902	44.3851	0.01542
	0.0721	104.7	6.93	6.65	11.19835	-2.7309	0.443851	-0.039987	-0.020243	-0.117370
			0.000	59.155						

RUN 38
PT 27

ORIGINAL PART OF POOR QUALITY

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2R 3R 4E 5E 6C 7G

PT 14	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CXR/S	CYR/S
180.2	58.5	60.1	-4.2	0.02	1.58	1.29	2.0	1.377383	0.070417	0.072596
0.2651	0.0914	2.9317	30.11	650.763	1.35	3.36	-58.17	0.021359	-0.016095	-0.067672
2031.18	96.0	0.0914	4.56	18.14	-0.66	-0.	0.9	1.3758	1.63448	-0.06887
0.0071	104.8	96.0	135.3	135.3	-0.42	2.93	-0.35	0.02489	15.5177	0.03081
			4.48	4.30	5.26540	-0.8305	0.155177	-0.115795	-0.019447	-0.125936
			0.000	19.153						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2R 3R 4E 5E 6E 7G

PT 26	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLR/S	CXR/S	CYR/S
180.1	57.1	80.0	-4.2	0.06	1.55	1.45	2.0	1.784061	-0.023268	0.03443
0.2631	0.0506	2.9328	30.11	794.964	1.33	4.95	116.92	0.038555	-0.024082	-0.094976
2032.58	104.0	0.0506	7.67	20.45	-0.15	-0.	-0.7	1.7838	2.02025	-0.03901
0.0021	104.7	104.0	181.1	179.1	-0.51	4.12	0.39	0.04291	28.9175	-0.01431
			5.83	5.60	8.69448	-2.3248	0.799175	-0.034667	-0.077381	-0.078799
			0.000	39.355						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 29 3C 4P 5C 6C 7G

RUN NO	PKTS	VOR	THETA	XZP	XTEL	RPO	ALFS,C	CLY/S	CRP/S	CVR/S
PT 11	179.9	90.3	-3.1	-0.57	1.57	1.28	2.0	1.447682	0.037449	0.069851
	98.3	2.8276	30.11	653.965	1.34	3.38	-38.85	0.046067	-0.076837	-0.100782
	0.2645	0.0917	4.35	18.00	-0.40	-0.	1.5	1.4455	1.71032	-0.08767
	2031.32	95.0	135.3	137.3	-0.65	2.88	-0.64	-0.00262	12.4562	0.09135
	0.0021	104.1	3.41	3.30	4.01881	0.0600	0.125562	-0.159863	-0.010350	-0.170413
			0.000	14.114						
PT 12	180.0	75.7	-3.1	-0.57	1.57	1.28	2.0	1.425635	0.035152	0.183120
	98.4	2.9104	30.11	642.727	1.34	3.26	-39.49	0.031530	0.001816	-0.093727
	0.2651	0.0911	4.56	18.07	-0.40	-0.	1.4	1.4235	1.72834	-0.084488
	2031.20	95.0	135.6	136.3	-0.64	2.80	-0.59	0.01028	13.6790	-0.07697
	0.0021	104.4	3.87	3.73	4.53256	-0.2759	0.132790	-0.155354	-0.001666	-0.154261
			0.000	16.535						
PT 17	180.6	79.6	-3.0	-0.57	1.58	1.27	2.0	1.431289	0.039949	0.064057
	98.3	2.9204	30.11	646.959	1.34	3.31	-36.31	0.057777	-0.008647	-0.083268
	0.2649	0.0907	4.46	17.55	-0.29	-0.	1.6	1.4290	1.67185	-0.089888
	2031.28	98.0	137.6	136.3	-0.64	2.85	-0.66	0.04245	13.1506	0.00290
	0.0021	104.2	3.51	3.40	4.18802	0.1554	0.131506	-0.164630	-0.011724	-0.173907
			0.000	14.808						
PT 18	179.6	78.7	-3.0	-0.57	1.57	1.27	2.0	1.448321	0.038152	0.081023
	97.6	2.9413	30.11	644.053	1.34	3.28	-38.13	0.050005	-0.008148	-0.112549
	0.2638	0.0857	4.40	17.96	-0.27	-0.	1.5	1.4661	1.66977	-0.08937
	2032.05	98.0	138.9	135.9	-0.57	2.82	-0.62	0.04739	15.8957	-0.00798
	0.0021	103.1	4.24	4.08	5.12243	-0.1045	0.158997	-0.166047	-0.012095	-0.177037
			0.000	18.390						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 20 3C 4P 5E 6E 7G

RUN	3A	VRTS	APM	THETA	X2P	XLEL	RPN	ALFS/C	CLP/S	CXP/S	CVR/S
PT	IC	QPSF	VDR	RAR	VJR	XTEL	PTRT	L/D	CMY/S	CMY/S	CMX/S
		MTUM	TIPM	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CM
		PST	TEMP	TEMPC	TEMP	XP	PT59T	FE	CMFH	CPQ/S	CLPM
		OMEGA	WC	WC	WP	CMUR100	CP3100	CP/S	CP/S		CM/S
			CPCR100	CPCR100	CPCR100						
PT 19	179.5	75.5	-2.9	-0.57	1.56	1.46	2.0	2.0	1.804475	0.019862	0.082808
	57.5	2.9177	30.11	807.770	1.32	5.05	-81.83	-0.004678	0.005235	-0.005235	-0.117090
	0.2638	C.0504	7.92	20.58	0.08	-0.	0.6	1.8046	1.94935	1.94935	-0.082809
	2032.11	100.0	157.7	188.6	-0.90	4.04	-0.33	-0.02076	35.5025	35.5025	0.08080
	0.0021	104.1	6.27	44.134	9.31523	-0.6461	0.355025	-0.144054	-0.095318	-0.095318	-0.147812
			0.000								
PT 20	180.0	75.5	-2.9	-0.57	1.55	1.45	2.0	2.0	1.820765	0.021386	0.084106
	57.6	2.9199	30.11	788.503	1.32	4.85	-73.11	0.019566	0.019566	-0.001971	-0.127838
	0.2636	C.0503	7.82	20.46	0.05	-0.	0.7	1.8189	2.06516	2.06516	-0.04492
	2032.20	101.0	182.7	179.1	-0.78	3.91	-0.35	0.01658	32.6689	32.6689	-0.03158
	0.0021	104.0	6.11	5.86	8.85208	-1.0272	0.326689	-0.154482	-0.006137	-0.006137	-0.157147
			0.000	41.902							
PT 21	180.1	80.0	-2.9	-0.57	1.56	1.44	2.0	2.0	1.767064	0.016885	0.080878
	57.6	2.9024	30.11	776.152	1.33	4.65	-83.30	0.061806	0.061806	-0.002848	-0.058823
	0.2635	C.0908	7.72	20.39	0.22	-0.	0.5	1.7854	1.95835	1.95835	-0.07854
	2032.27	102.0	183.0	191.4	-0.77	3.81	-0.28	0.03603	25.9037	25.9037	-0.00685
	0.0021	104.7	5.94	5.70	8.40819	-1.2564	0.298017	-0.138047	-0.006795	-0.006795	-0.133778
			0.000	39.761							
PT 22	175.9	80.0	-2.9	-0.57	1.55	1.44	2.0	2.0	1.771740	0.025310	0.070088
	57.2	2.8555	30.11	789.557	1.33	4.85	-58.59	0.061864	0.061864	-0.009574	-0.085574
	0.2633	C.0908	7.72	20.36	0.21	-0.	0.8	1.7691	2.05444	2.05444	-0.08710
	2032.46	102.0	182.4	181.1	-0.75	3.89	-0.43	0.05740	31.6794	31.6794	-0.00665
	0.0021	104.7	6.09	5.84	8.76584	-1.3664	0.316794	-0.164954	-0.012779	-0.012779	-0.164070
			0.000	40.560							
PT 23	180.0	80.0	-2.9	-0.57	1.56	1.44	2.0	2.0	1.768410	0.019862	0.085214
	97.1	2.9010	30.11	786.319	1.32	4.80	-71.37	0.084465	0.084465	-0.018493	-0.093464
	0.2632	C.0907	7.67	20.37	0.30	-0.	0.6	1.7666	2.00505	2.00505	-0.08157
	2032.53	103.0	186.6	181.4	-0.70	4.02	-0.33	0.06711	30.0122	30.0122	-0.00680
	0.0021	104.7	5.82	5.59	8.37370	-1.4200	0.300122	-0.149513	-0.021744	-0.021744	-0.154597
			0.000	39.003							

ORIGINAL PAGE IS
OF POOR QUALITY

PT	24	VKTS	RPM	THETA	X2P	XLEL	FPO	ALFS,C	CLP/S	CRP/S	CVP/S
		190.2	80.0	-7.9	-0.57	1.56	1.45	2.0	1.810309	0.029585	0.074014
		57.3	2.9039	30.11	785.333	1.32	4.78	-53.60	0.095950	-0.017037	-0.107547
		0.2634	0.0507	8.77	20.45	0.29	-0.	0.9	1.9083	2.04391	-0.00175
		2032.34	103.0	185.6	182.4	-0.70	3.91	-0.48	0.07077	33.4377	-0.01184
		0.0021	104.7	6.49	6.23	9.31958	-1.5078	0.334377	-0.179368	-0.020775	-0.185065
				0.000	43.546						

PT	24	OPSF	V/DR	RAR	VJR	XTEL	PTRT	L/D	CMY/S	CMZ/S	CVR/S
		190.4	83.4	-3.1	-0.05	1.20	0.96	2.0	0.551707	0.024610	0.104427
		55.4	2.7885	29.98	1082.638	1.27	-0.19	-28.44	0.094766	0.004484	-0.008481
		0.2616	0.0938	-0.49	13.47	-0.01	0.	7.6	0.5506	1.08949	-0.00385
		2024.83	112.0	136.6	125.8	0.06	-0.46	-0.45	0.08178	-41.9599	0.04254
		0.0021	109.2	-4.46	-4.43	-8.57381	1.4532	-0.410599	-0.061957	0.004385	-0.077103
				0.000	0.000						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2B 3C 4E 5F 6A 7G

RUN	30	WVTS	FPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CRP/S	CVR/S
PT	13	190.4	83.4	-3.1	-0.05	1.20	0.96	2.0	0.551707	0.024610	0.104427
		55.4	2.7885	29.98	1082.638	1.27	-0.19	-28.44	0.094766	0.004484	-0.008481
		0.2616	0.0938	-0.49	13.47	-0.01	0.	7.6	0.5506	1.08949	-0.00385
		2024.83	112.0	136.6	125.8	0.06	-0.46	-0.45	0.08178	-41.9599	0.04254
		0.0021	109.2	-4.46	-4.43	-8.57381	1.4532	-0.410599	-0.061957	0.004385	-0.077103
				0.000	0.000						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2B 3C 4E 5E 6C 7C

Q/RN 3R PT 13	VKTS OPSF MTUN PST RHO100	PPM V/OP TIPM TEMP OMEGAR	THETA BAR PTC TEMPC WC CPCRI00	X2P VJR PTP TSMPP WP CPR100	XLEL XTEL XR XP CMUR100	RPU PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CP/S	CLP/S CMY/S CT CMPH CPO/S	CXR/S CMZ/S CTH CPR100 CO/S	CMX/S CH CLPH COM/S
	180.3	80.0	-3.1	3.02	1.58	1.29	2.0	1.43163	0.038183	0.058650
	98.6	2.9050	30.11	624.300	1.34	3.06	-37.47	0.026961	-0.009790	-0.105315
	0.2652	0.0913	4.71	13.16	-0.51	-0.	1.5	1.4340	1.68865	-0.08878
	2031.08	56.0	136.9	134.6	-0.58	2.77	-0.64	-0.00604	15.3275	-0.00515
	0.0021	104.7	4.57	4.39	5.16180	-0.0565	0.153279	-0.162618	-0.013468	-0.175571
			0.000	19.637						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2B 3C 4E 5E 6C 7C

Q/RN 3R PT 10	VKTS OPSF MTUN PST RHO100	PPM V/OP TIPM TEMP OMEGAR	THETA BAR PTC TEMPC WC CPCRI00	X2P VJR PTP TEMP WP CPR100	XLEL XTEL XR XP CMUR100	RPU PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CP/S	CLP/S CMY/S CT CMPH CPO/S	CXR/S CMZ/S CTH CPR100 CO/S	CMX/S CH CLPH COM/S
	180.3	79.7	-3.0	0.59	1.57	1.28	2.0	1.387644	0.040652	0.045912
	98.4	2.5174	30.11	659.446	1.34	3.46	-34.32	0.041382	-0.003252	-0.064011
	0.2650	0.0908	4.86	18.07	-0.42	-0.	1.7	1.3854	1.63725	-0.08906
	2031.25	97.0	138.6	135.9	-0.54	2.95	-0.68	0.01053	18.0556	0.01282
	0.0021	104.3	4.72	4.54	5.69017	0.0653	0.180556	-0.165479	-0.005484	-0.171616
			0.000	20.230						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2E 3E 4E 5E 6C 7G

RUN 19 PT 15	VKTS QPSF MTUN PST PHO100	PPM V/OR T/PP TEMP OMEGA	THETA RAR PTC TEMP WC CPCP100	X2P VJR PTP TEMP WP CPPR100	XLEL XTEL XR XP CMUP100	PPD PTAT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CP/S	CLP/S CMY/S CT CMPH CPI/S	CPH/S CM7/S CTH CPI100 CQ/S	CPH/S CM7/S CTH CPI100 CQ/S
180.3	175.4	79.5	-0.9	0.02	1.58	1.27	2.0	1.477565	0.055005	0.000463
55.4	1.2954	2.5204	30.11	650.917	1.34	3.36	-27.70	0.067263	-0.006844	-0.000771
0.2615	0.2019	0.0906	4.35	17.90	0.13	-0.	2.1	1.4748	1.75913	-0.17654
2021.53	112.0	97.0	138.2	135.5	-0.69	2.80	-0.91	0.06011	14.2803	-0.01149
0.0021	234.9	104.1	3.68	3.55	4.41159	0.4833	0.142803	-0.209641	-0.009416	-0.022433
			0.000	15.331						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2C 3A 4B 5E 6C 7G

RUN 36 PT 4	VKTS QPSF MTUN PST PHO100	PPM V/OR T/PP TEMP OMEGA	THETA RAR PTC TEMP WC CPCP100	X2P VJR PTP TEMP WP CPPR100	XLEL XTEL XR XP CMUP100	PPD PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CP/S	CLP/S CMY/S CT CMPH CPI/S	CPH/S CM7/S CTH CPI100 CQ/S	CPH/S CM7/S CTH CPI100 CQ/S
180.3	175.4	175.4	-4.4	-0.55	1.59	1.27	2.0	0.199614	-0.002200	0.010892
55.4	1.2954	1.2954	29.93	679.053	1.35	3.39	59.07	-0.002339	0.002667	-0.005715
0.2615	0.2019	0.2019	4.33	17.91	-0.59	-0.	-0.6	0.1999	0.26667	-0.00478
2021.53	112.0	112.0	188.6	180.7	-0.60	2.78	0.19	0.00443	1.3974	0.00117
0.0021	234.9	234.9	3.37	3.26	0.85542	0.1609	0.011974	0.002238	0.002376	0.002965
			0.000	1.356						
179.8	172.8	172.8	-4.2	-0.57	1.58	1.27	2.0	0.220061	0.003663	0.007505
58.6	1.3418	1.3418	30.11	692.067	1.34	3.58	-100.12	0.003836	0.001215	-0.015304
0.2653	0.1977	0.1977	4.66	17.55	-0.55	-0.	0.9	0.2207	0.28718	-0.01137
2031.04	93.0	93.0	175.5	176.2	-0.54	2.80	-0.29	0.00872	1.9436	0.00565
0.0021	226.2	226.2	4.28	-1.1	1.14275	0.1954	0.019436	-0.005592	0.000678	-0.006454
			0.000	1.855						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2C 3B 4A 5E 6E 7G

VRIS	KPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CRP/S	CVR/S
ORSF	V/OR	RAP	VJR	XTFL	PTRT	L/D	CMV/S	CM7/S	CMK/S
PTUN	TIPP	PTC	PTP	XR	PT55L	ANGX/L	CT	CTH	CH
PST	TEMP	TEPC	TEPP	XP	PT59T	FE	CMFH	CPR100	CLRH
RHO100	CMEG#R	WC	WP	CMUR100	CP5100	CP/S	CPH/S	CO/S	CON/S
		CPCR100	CPPF100						
PUN 36	174.4	-4.2	-0.57	1.58	1.46	2.0	0.298602	0.000673	0.001932
PT C	1.3292	30.11	R12.218	1.34	5.24	-307.31	0.019723	-0.003373	-0.0144P3
	0.1998	7.78	20.55	0.25	-0.	0.1	0.7984	0.34204	-0.01109
	2030.90	177.1	176.5	-0.59	4.29	-0.05	0.02147	3.2110	0.00015
	0.0021	5.97	5.72	1.82852	-0.0396	0.037130	-0.005122	-0.0027891	-0.000617
	278.3	0.000	3.847						

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2C 3R 4P 5E 6F 7G

PT	1E	2C	3R	4P	5E	6F	7G	TRPETA	XZP	XLEL	RPO	ALFS,C	CLP/S	CMV/S	CVP/S	
								RAP	VJR	XTEL	PTRT	L/D	CMV/CT	CMV/CTH	CMV/CTH	
								PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CTH	
								TEMP	TEMP	XP	PT59T	FE	CMPH	CLP/CM	CLP/CM	
								MC	WP	CMJF100	CPS100	CPS	CPS	CPS	CPS	
								CPCP100	CPPR100							
RUN 36																
PT 6	180.6	179.3					-4.4		-0.55	1.60	1.52	2.0	0.2P2143	-0.004123	0.007169	
	55.3	1.2089					29.93	833.187	833.187	1.36	5.46	67.80	-0.001801	0.003243	-0.014286	
	0.2013	0.2012					8.86	21.40	21.40	0.24	-0.	-0.8	0.2921	0.32832	-0.00573	
	2021.6	115.0					154.5	135.0	135.0	-0.81	4.84	0.35	0.00272	3.6786	-0.00768	
	0.0020	234.7					6.66	6.38	6.38	2.06951	0.0050	0.036786	0.000991	0.002743	0.003684	
							0.000	4.652	4.652							
RUN 33																
PT 7	181.3	171.8					-4.2		-0.57	1.58	1.53	2.0	0.313110	-0.001165	0.007264	
	101.3	1.3608					30.11	860.544	860.544	1.33	6.03	144.98	-0.002201	0.000856	-0.014697	
	0.2651	0.1577					8.85	21.61	21.61	0.18	-0.	-0.2	0.3130	0.36646	-0.00576	
	2028.38	87.0					177.1	176.8	176.8	-0.80	4.93	0.09	0.00349	4.3379	-0.00100	
	0.0022	224.9					6.79	6.50	6.50	2.24930	0.1354	0.044379	-0.002750	0.000307	-0.001254	
							0.000	5.116	5.116							
PT 8	181.0	172.2					-4.2		-0.57	1.58	1.53	2.0	0.318065	-0.003012	0.003267	
	100.7	1.3553					30.11	862.329	862.329	1.34	6.05	115.29	0.014587	-0.002445	-0.014739	
	0.2683	0.1580					9.20	21.58	21.58	0.28	-0.	-0.5	0.3180	0.37864	-0.00899	
	2028.51	88.0					180.4	177.8	177.8	-0.64	5.01	0.23	0.01762	4.5838	-0.00447	
	0.0022	225.4					7.29	6.98	6.98	2.41447	-0.0344	0.045838	-0.001637	-0.001077	-0.004320	
							0.000	5.458	5.458							
PT 9	181.0	172.5					-4.2		-0.57	1.57	1.53	2.0	0.353842	-0.000346	0.000676	
	100.7	1.3530					30.11	846.360	846.360	1.34	5.77	323.58	0.005516	0.000003	-0.032356	
	0.2683	0.1583					8.95	21.55	21.55	0.01	-0.	-0.1	0.3536	0.39741	-0.01200	
	2028.96	88.0					176.2	177.8	177.8	-0.64	4.74	0.03	0.00014	4.7584	-0.01984	
	0.0022	225.7					6.84	6.56	6.56	2.21772	0.1012	0.042584	-0.005185	-0.000227	-0.006423	
							0.000	5.987	5.987							
PT 10	181.0	172.6					-4.2		-0.57	1.57	1.53	2.0	0.304946	-0.002359	0.005028	
	100.6	1.3522					30.11	863.756	863.756	1.33	6.10	113.15	0.009048	-0.001218	-0.008384	
	0.2681	0.1583					8.80	21.50	21.50	0.28	-0.	-0.4	0.3049	0.37313	-0.00920	
	2029.05	89.0					170.6	175.8	175.8	-0.65	4.98	0.18	0.01261	4.2536	0.00904	
	0.0022	226.0					6.66	6.38	6.38	2.20200	0.0454	0.042537	-0.001310	-0.001510	-0.003775	
							0.000	4.903	4.903							

PT	7	8
	VKTS	VKTS
	CPSE	CPSE
	MTUN	MTUN
	PST	PST
	RHO100	RHO100
	RPM	RPM
	V/OR	V/OR
	TIPM	TIPM
	TFMP	TFMP
	OMEGOR	OMEGOR
	THETA	THETA
	RAP	RAP
	PTC	PTC
	TEMPC	TEMPC
	WC	WC
	CPCR100	CPCR100
	X2P	X2P
	VJR	VJR
	PTP	PTP
	TEMPP	TEMPP
	WP	WP
	CPPR100	CPPR100
	XLEL	XLEL
	XTEL	XTEL
	XP	XP
	XP	XP
	CMUR100	CMUR100
	FPO	FPO
	PTRT	PTRT
	PT59L	PT59L
	PT59T	PT59T
	CPS100	CPS100
	ALFS,C	ALFS,C
	L/D	L/D
	ANGX/L	ANGX/L
	FE	FE
	CP/S	CP/S
	CLP/S	CLP/S
	CMV/S	CMV/S
	CT	CT
	CMPH	CMPH
	CPH/S	CPH/S
	CRP/S	CRP/S
	CM7/S	CM7/S
	CTM	CTM
	CPH100	CPH100
	CO/S	CO/S
	CVR/S	CVR/S
	CM7/S	CM7/S
	CM	CM
	CLPHM	CLPHM
	CON/S	CON/S

DATA II. THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
IF 20 30 4E 5E 6A 7C

PT	30	12
	VKTS	VKTS
	CPSE	CPSE
	MTUN	MTUN
	PST	PST
	RHO100	RHO100
	RPM	RPM
	V/OR	V/OR
	TIPM	TIPM
	TFMP	TFMP
	OMEGOR	OMEGOR
	THETA	THETA
	RAR	RAR
	PTC	PTC
	TEMPC	TEMPC
	WC	WC
	CPCR100	CPCR100
	X2P	X2P
	VJR	VJR
	PTP	PTP
	TEMPP	TEMPP
	WP	WP
	CPPR100	CPPR100
	XLEL	XLEL
	XTEL	XTEL
	XP	XP
	XP	XP
	CMUR100	CMUR100
	RPO	RPO
	PTRT	PTRT
	PT59L	PT59L
	PT59T	PT59T
	CPS100	CPS100
	ALFS,C	ALFS,C
	L/D	L/D
	ANGX/L	ANGX/L
	FE	FE
	CP/S	CP/S
	CLP/S	CLP/S
	CMV/S	CMV/S
	CT	CT
	CMPH	CMPH
	CPH/S	CPH/S
	CRP/S	CRP/S
	CM7/S	CM7/S
	CTM	CTM
	CPH100	CPH100
	CO/S	CO/S
	CVR/S	CVR/S
	CM7/S	CM7/S
	CM	CM
	CLPHM	CLPHM
	CON/S	CON/S

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 27 33 48 5E 6C 7G

RUN 34 PT 17	VKTS QPSF MTUN PST RMO100	FPM V/OR TIPM TEMP OMEGAR	THETA RAR PTC TEMPC WC CPCP100	X2P VJR PTP TEMP WP CPR100	XLEL XTEL XR XP CMUR100	RPO PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLP/S CMY/S CT CMRH CPO/S	CXR/S CM7/S CTH CPP100 C0/S	CYP/S CMX/S CM CL0CM CON/S
	180.4	260.0	-4.4	-0.59	1.56	1.24	2.0	0.057368	-0.002465	0.005002
	57.6	0.8544	29.95	605.873	1.33	7.70	10.79	0.000754	0.002133	0.002267
	3.2647	0.2959	3.90	17.37	-0.51	-0.	-2.5	0.00574	0.000644	0.000644
	2020.68	59.0	171.9	154.4	-0.28	2.79	0.44	0.02460	0.00052	0.00665
	0.0021	340.4	3.78	3.64	0.39749	0.2549	0.036002	0.004489	0.002211	0.004151
			0.000	0.427						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 27 3C 48 5E 6C 7G

RUN 34 PT 11	VKTS QPSF MTUN PST RMO100	FPM V/OR TIPM TEMP OMEGAR	THETA RAR PTC TEMPC WC CPCP100	X2P VJR PTP TEMP WP CPR100	XLEL XTEL XR XP CMUR100	RPO PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLR/S CMY/S CT CMRH CPO/S	CXR/S CM7/S CTH CPP100 C0/S	CYP/S CMX/S CM CL0CM CON/S
	180.3	259.7	-3.1	-0.59	1.54	1.25	2.0	0.076264	-0.002544	0.002780
	57.9	0.8551	29.95	579.391	1.30	2.55	15.27	0.003275	0.001449	-9.004143
	0.265C	0.2541	3.40	17.51	0.35	-0.	-1.9	0.0763	0.10773	-0.0010
	2020.42	97.0	155.6	138.6	-0.74	2.90	0.45	0.02937	0.05287	-0.00189
	0.0021	340.0	3.64	3.50	0.36497	0.7172	0.005287	0.006001	0.001495	0.003374
			0.000	0.408						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

LE 20 30 4E 5C 6A 7C

PKTS	RPM	TFETA	X2P	XLEL	RPO	ALFS-C	CLP/S	CRP/S	CVR/S
181.1	262.1	-3.1	-0.05	0.36	0.56	2.0	0.011438	-0.001541	0.005970
57.3	0.8909	29.98	1074.147	1.36	-0.20	2.20	0.009511	0.002573	0.001020
0.2641	0.2964	-0.18	13.55	-0.03	0.	-7.7	0.0115	0.06802	0.00114
2020.13	106.0	113.7	116.7	0.04	-0.24	0.27	0.01344	0.0247	0.00779
0.0021	343.1	1.69	1.65	0.31791	0.3265	0.008742	0.004677	0.002557	0.00910
		0.000	0.000						

RUN 33
PT 11

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

LE 2E 3A 4P 5E 6E 7C

PKTS	RPM	THETA	X2P	XLEL	RPO	ALFS-C	CLP/S	CRP/S	CVR/S
180.3	269.9	-4.4	-0.59	1.57	1.50	2.0	0.006873	-0.004079	0.003294
57.6	0.8614	29.95	812.665	1.34	5.40	13.23	0.000050	0.001718	-0.007728
0.2646	0.3072	7.87	23.98	0.33	-0.	-2.7	0.00970	0.10658	0.00104
2020.72	99.0	127.4	138.5	-0.78	5.17	0.78	0.02742	1.097E	0.00300
0.0021	353.3	5.90	5.65	0.76794	0.2144	0.010575	0.005076	0.001152	0.004075
		0.000	1.079						

RUN 34
PT 13

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CURVES -
 1E 2E 3E 4E 5E 6E 7E

POINT	WETS	W/OB	THETA	X2P	XLEL	PPL	ALFSC	CLF/S	CFR/S	CFR/S	CFR/S
	CPSE	V/DR	PAP	VJB	XTEL	PT4T	L/C	CMV/S	CM7/S	CM7/S	CM7/S
	WTUN	TEMP	PTC	PJP	XR	PT5L	AMG/XL	FT	PTH	PTH	PTH
	PSY	TEMP	TRMPC	TEMP	XP	PT5T	FC	CMFH	CPD100	CPD/S	CPD/S
	BMC100	CMEGOP	WC	WP	CMUP100	CP5100	CP/S	CP/S			
PT 1	180.3	268.4	-4.4	-0.56	1.58	1.63	2.0	0.101873	-0.005456	0.001665	0.001665
	57.5	635.471	29.93	935.471	1.35	7.30	13.86	0.007545	0.001056	-0.007545	-0.007545
	0.2051	0.3060	13.94	27.88	0.45	-0.	-3.1	0.1120	0.12833	0.001153	0.001153
	2015.05	57.0	205.2	195.0	-0.77	6.26	1.03	0.00796	1.6688	-0.00796	-0.00796
	0.0021	351.3	7.48	7.17	1.13036	0.1638	0.016688	0.005505	0.000967	0.004834	0.004834
			0.000	1.741							
PT 4	180.1	271.0	-4.4	-0.55	1.58	1.51	2.0	0.096873	-0.003921	-0.001614	-0.001614
	54.8	851.607	29.93	851.607	1.35	5.80	19.77	0.015546	0.003018	-0.005278	-0.005278
	0.2636	0.3074	8.62	21.20	0.41	-0.	-2.4	0.0950	0.17447	0.00741	0.00741
	2070.10	122.0	182.0	141.4	-0.44	5.19	0.75	0.01875	1.1535	-0.00151	-0.00151
	0.0021	354.7	6.46	6.15	0.87893	0.0584	0.011535	0.003587	-0.000164	0.007439	0.007439
			0.000	1.248							
PT 2	180.3	271.7	-4.4	-0.55	1.58	1.51	2.0	0.104321	-0.003154	-0.003641	-0.003641
	36.3	847.086	29.93	847.086	1.35	5.72	20.93	0.007509	0.002316	-0.005582	-0.005582
	0.2624	0.3073	8.82	21.22	0.10	-0.	-1.7	0.1044	0.13741	-0.0002	-0.0002
	2070.59	104.0	178.1	181.7	-0.63	5.00	0.41	0.00430	1.2303	-0.001883	-0.001883
	0.0021	355.7	6.71	6.43	0.93926	0.1565	0.012393	0.003348	0.001946	0.003706	0.003706
			0.000	1.297							
PT 5	180.2	270.9	-4.4	-0.55	1.59	1.52	2.0	0.066753	-0.004435	0.001652	0.001652
	76.0	845.170	29.93	845.170	1.35	5.65	11.12	0.010750	0.001103	-0.005352	-0.005352
	0.2623	0.3058	9.57	21.35	0.56	-0.	-4.0	0.0649	0.05718	0.00730	0.00730
	2026.59	108.0	178.1	191.4	-0.64	5.23	0.89	0.01494	1.2373	0.00512	0.00512
	0.0021	354.6	6.86	6.57	0.93593	0.1171	0.012323	0.004773	0.001280	0.004951	0.004951
			0.000	1.359							
PT 7	183.3	270.5	-4.4	-0.55	1.58	1.51	2.0	0.092656	-0.003475	0.000511	0.000511
	65.9	846.854	29.93	846.854	1.35	5.72	17.28	0.004146	0.001480	-0.003714	-0.003714
	0.2623	0.3051	9.76	21.14	0.32	-0.	-2.1	0.0978	0.17144	0.003074	0.003074
	2070.39	105.0	175.8	191.7	-0.67	5.00	0.66	0.00779	1.2048	0.00705	0.00705
	0.0021	354.1	6.89	6.61	0.94713	0.1623	0.012948	0.003990	0.001350	0.003617	0.003617
			0.000	1.344							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

PT	PT 30						PT 10						PT 11																														
	WKS	RPM	THETA	X2P	XLEL	RPO	ALF.C	CLD/S	CRD/S	CRV/S	WKS	RPM	THETA	X2P	XLEL	RPO	ALF.C	CLD/S	CRD/S	CRV/S	WKS	RPM	THETA	X2P	XLEL	RPO	ALF.C	CLD/S	CRD/S	CRV/S													
	180.0	321.3	-4.0	-0.56	-0.02	1.45	7.0	0.053288	-0.003507	0.003170																																	
	56.3	0.7242	29.91	761.041	1.33	4.39	4.53	-0.002091	0.002322	0.002100																																	
	0.2626	0.3630	6.65	20.29	0.13	-0.	-3.8	0.00534	0.06700	0.05854																																	
	2019.22	107.0	192.5	183.3	-0.80	4.22	0.95	-0.007015	0.002270	0.00036																																	
	0.0021	420.6	5.15	4.94	0.44992	0.1983	0.006054	0.004740		0.006759																																	
	180.3	319.8	-4.0	-0.55	-0.02	1.46	7.0	0.053069	-0.003170	0.002100																																	
	56.1	0.7268	29.91	775.054	1.33	4.59	4.50	-0.002209	0.002100	0.05854																																	
	0.2626	0.3613	6.70	20.44	0.19	-0.	-3.4	0.00531	0.06700	0.05854																																	
	2013.41	107.0	191.2	193.0	-0.87	4.35	0.84	-0.00036	0.002270	0.00036																																	
	0.0021	418.6	5.22	5.00	0.46833	0.2270	0.006066	0.004740		0.006759																																	
	180.4	319.6	-4.4	-0.55	-0.02	1.45	7.0	0.052842	-0.003374	0.002100																																	
	56.1	0.7279	29.91	760.517	1.33	4.39	4.38	-0.002540	0.002100	0.05854																																	
	0.2626	0.3608	5.55	20.26	-0.20	-0.	-3.6	0.00579	0.06700	0.05854																																	
	2015.41	108.0	154.8	183.3	-0.64	4.22	0.89	0.00118	0.002270	0.00036																																	
	0.0021	418.3	4.95	4.75	0.43796	0.2168	0.006151	0.004740		0.006759																																	

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2F 3R 4B 5C 6F 7G

POINT	VKTS	RPM	THETA	X2P	XLEL	FPO	ALFS.C	CLR/S	CYR/S
RUN 12	183.9	319.6	-4.4	-0.53	-0.03	1.67	2.0	0.064478	0.003042
PT 12	56.1	0.7256	25.91	892.483	1.34	6.57	8.80	-0.003234	-0.007500
	0.2026	0.3355	10.12	23.35	0.27	-0.	-4.1	0.0644	0.00241
	2015.43	111.0	14.4.1	177.8	-0.85	6.02	1.24	-0.00124	0.00041
	0.0021	418.4	7.09	6.78	0.73716	0.1946	0.009808	0.004936	0.005025
			0.000	1.025					

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2E 3E 4E 5E 6E 7E

POINT	VKTS	CFM	THETA	X2P	XLEL	WPO	ALFS/C	CLF/S	CMZ/S	CPV/S
PT 3*	180.1	322.1	-3.8	-0.60	1.58	1.39	2.0	0.054583	-0.003656	0.000013
	59.9	0.7707	29.95	733.231	1.34	4.19	9.06	0.002385	0.000791	-0.002037
	0.2664	0.3696	6.37	19.55	0.26	-0.	-3.8	0.05447	0.06951	0.00175
	2019.46	90.0	185.0	162.1	-0.61	4.34	1.00	0.01953	0.5706	-0.00037
	0.0021	421.7	4.94	-4.75	0.40223	0.1709	0.005206	0.004047	0.000719	0.0003057
			0.000	0.440						
PT 1*	175.7	315.6	-3.9	-0.59	1.58	1.38	2.0	0.049905	-0.003883	0.002226
	57.8	0.7746	29.95	749.456	1.34	4.35	7.77	0.002438	0.001253	-0.001456
	0.2645	0.3656	6.06	19.31	0.28	-0.	-4.5	0.0490	0.06445	0.00217
	2020.49	94.0	175.8	169.0	-0.64	4.28	1.05	0.01950	0.5553	0.00137
	0.0021	418.7	5.06	-4.86	0.42980	0.1746	0.005593	0.004322	0.001201	0.000777
			0.000	0.452						
PT 15	179.6	320.5	-4.0	-0.59	1.58	1.39	2.0	0.061403	-0.004273	-0.000600
	57.5	0.7727	29.95	755.073	1.34	4.45	9.66	0.003991	0.000250	-0.004527
	0.2645	0.3660	6.31	19.57	0.08	-0.	-4.0	0.0615	0.07053	0.00213
	2020.79	95.0	170.6	136.7	-0.38	4.41	1.16	0.02217	0.5235	-0.00247
	0.0021	415.5	4.85	-4.66	0.41442	0.1505	0.005235	0.004217	0.000007	0.002759
			0.000	0.447						
PT 17	179.6	320.0	-3.9	-0.55	1.57	1.40	2.0	0.055967	-0.004677	-0.000451
	57.0	0.7735	29.95	762.468	1.35	4.25	8.55	0.002322	0.003173	-0.003269
	0.2637	0.3655	6.51	19.59	0.20	-0.	-4.8	0.0561	0.08414	0.00272
	2021.35	98.0	235.6	274.9	-0.50	4.25	1.26	0.02033	0.5565	-0.00112
	0.0021	418.9	5.33	5.11	0.46233	0.1357	0.005565	0.004470	0.000050	0.003131
			0.000	0.525						
RUN 11	175.7	320.7	-3.8	-0.54	1.56	1.33	2.0	0.050735	-0.001519	0.003101
PT 13	53.9	0.7227	29.95	726.721	1.32	4.03	10.36	-0.002069	0.002887	-0.001403
	0.2593	0.3588	5.98	19.76	-0.01	-0.	-1.7	0.0508	0.07317	-0.00025
	2024.39	118.0	175.5	172.9	-0.83	3.71	0.41	-0.00074	0.6165	0.00037
	0.0020	419.8	5.04	4.84	0.42998	0.2443	0.006165	0.003784	0.002764	0.000605
			0.000	0.424						

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PT 14	VKTS QPSF MTUN PST RH0100	RPM V/DR TIPM TFMP OMEGA	THETA BAR PTC TEMPC WC CPCR100	X2P VJR PTP T-MPP WP CPR100	XLEL XTEL XR XP CMUP100	PPO PRTT PT59L PT59T CPS100	ALFS+C L/D ANGX/L FF CP/S	CLP/S CMV/S CT CMPH CPS/S	CRZ/S CMZ/S CTM CPI100 CPS	CVR/S CMV/S CH CL96H C00/S
	175.6 93.8 0.2592 2024.48 0.0020	320.4 0.7729 0.3585 118.0 415.4	-4.4 29.95 5.63 17.25 4.93 0.000	-0.54 716.748 18.69 172.6 4.74 0.411	1.56 1.32 -0.39 -0.58 0.41572	1.33 3.50 -0.2 3.55 0.7255	2.0 10.76 -1.7 0.39 0.005847	0.049474 -0.000054 0.04495 0.00125 0.003082	-0.001424 0.002708 0.07804 0.5847 0.002753	0.002301 -0.001240 -0.00030 0.00030 0.001540

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

IE 28 3R 4P 5E 6E 7G	VKTS QPSF MTUN PST RH0100	RPM V/DR TIPM TFMP OMEGA	THETA BAR PTC TEMPC WC CPCR100	X2P VJR PTP TEMP WP CPR100	XLEL XTEL XR XP CMK100	PPO PRTT PT59L PT59T CPS100	ALFS+C L/D ANGX/L FE CP/S	CLP/S CMV/S CT CMPH CPS/S	CRZ/S CMZ/S CTM CPI100 CPS	CVR/S CMV/S CH CL96H C00/S
KUM 34 PT 16	179.5 97.3 0.2642 2021.07 0.0021	319.2 0.7253 0.3642 46.0 417.8	-3.9 25.95 6.51 209.5 5.51 0.000	-0.59 763.072 14.67 159.0 5.28 0.546	1.58 1.35 0.34 -0.67 0.47868	1.40 4.30 -0.2 7.33 0.1529	2.0 6.96 -5.6 1.25 0.005900	0.046974 0.001243 0.0471 0.01458 0.004676	-0.004641 0.000473 0.06543 0.5900 0.007483	0.001118 0.000314 0.00300 0.07263 0.001630

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CORES -
 IF 7 3R 4E 5E 6F 7G

PT	34	3	4	5	7	8
	WVTS	191.3	190.7	180.7	180.2	180.1
	QPSF	101.0	100.7	99.0	98.2	98.1
	PTUM	0.2658	0.2686	0.2682	0.2657	0.2653
	PST	2013.05	2013.85	2014.15	2015.58	2015.76
	RHO100	0.0022	0.0022	0.0022	0.0021	0.0021
	MPM	320.3	320.3	315.5	321.8	320.7
	V/DK	0.7258	0.7275	0.7296	0.7222	0.7243
	TIPY	0.3657	0.3692	0.3676	0.3679	0.3663
	TEMP	84.0	85.0	87.0	94.0	85.0
	CMEGR8	419.3	419.3	418.2	421.2	419.8
	THETA	-4.4	-4.4	-4.4	-4.4	-4.4
	RAP	29.89	29.89	29.89	29.95	29.95
	PTC	10.01	11.21	10.65	10.09	9.94
	TEMPC	147.4	155.6	158.2	124.2	125.7
	WC	7.24	7.73	7.71	7.75	6.98
	CPCR100	0.000	0.000	0.000	0.000	0.000
	X2P	-0.60	-0.60	-0.60	-0.59	-0.59
	VJR	896.635	833.198	503.514	869.505	877.502
	PTP	22.82	23.99	23.27	22.65	22.76
	T-MPD	173.9	174.5	171.6	167.0	167.0
	MP	6.93	7.40	7.38	7.42	6.69
	CPR100	0.953	1.116	1.061	0.993	0.911
	XLEL	1.53	1.54	1.53	1.56	1.58
	XTEL	1.31	1.32	1.31	1.34	1.34
	XP	0.73	0.74	0.73	-0.05	0.50
	XP	-0.75	-0.76	-0.67	-0.45	-0.71
	CPUR100	0.72018	0.80168	0.78092	0.75203	0.69028
	FPO	1.63	1.72	1.66	1.62	1.62
	PTRT	6.68	7.40	6.84	6.28	6.43
	PT59L	-0.	-0.	-0.	-0.	-0.
	PT59T	6.26	6.83	6.38	5.93	6.16
	CP5100	0.2016	0.1906	0.1781	0.1685	0.1768
	ALFS/C	7.0	2.0	2.0	7.0	2.0
	L/D	4.84	9.72	9.82	10.01	6.92
	AMGX/L	-4.2	-4.3	-4.0	-4.1	-5.8
	FE	1.31	1.44	1.45	1.64	1.52
	CP/S	0.009716	0.010728	0.010712	0.009447	0.008983
	CLF/S	0.068176	0.072704	0.077559	0.083772	0.085847
	CMV/S	-0.001048	0.000679	0.000277	0.001668	0.001699
	CT	0.7683	0.0728	0.0777	0.0839	0.0860
	CMPH	0.01515	0.01687	0.01676	0.01971	0.01900
	CPN/S	0.005169	0.005213	0.005172	0.005342	0.005533
	CKP/S	-0.004948	-0.005404	-0.005441	-0.006033	-0.005627
	CMZ/S	0.001318	0.000873	0.000727	0.000387	0.000789
	CTH	0.07457	0.07841	0.09441	0.09602	0.05021
	CP100	0.9716	1.0728	1.0212	0.9447	0.8983
	CON/S	0.001739	0.000764	0.000541	0.000051	0.000434
	CVP/S	0.000291	-0.000318	-0.001740	-0.003634	0.002335
	CMX/S	-0.002735	-0.007467	-0.005308	-0.005528	0.001629
	CM	0.00257	0.00784	0.00275	0.00311	0.00367
	CL08	-0.00064	0.00005	-0.00327	-0.00015	0.00767
	CON/S	0.06392	0.004194	0.003937	0.003778	0.004539

	VKTS	KPM	THETA	Y2P	XLCL	F2P	ALFS,C	CLP/S	CMZ/S	CMV/S
PT 7	180.4	319.3	-4.4	-0.59	1.57	1.60	2.0	0.067683	-0.006074	-0.007210
	98.3	C.7285	29.95	A59.624	1.34	6.0R	8.42	0.003591	0.000490	0.007524
	C.2657	0.3647	0.74	22.42	0.32	-0.	-5.1	0.0679	0.08054	0.0036
	2019.5P	55.0	138.6	107.3	-0.52	6.01	1.61	0.07210	0.8464	0.00018
	0.7721	413.0	7.49	7.16	0.72961	0.1470	0.008964	0.005406	0.200342	0.200278
			0.000	0.561						
PT 10	180.3	315.3	-4.4	-0.59	1.56	1.63	2.0	0.066739	-0.005598	0.001199
	98.1	0.7282	29.95	877.092	1.34	6.41	8.07	-0.005449	0.001574	-0.001501
	0.2654	0.3644	5.84	22.83	0.22	-0.	-4.8	0.03660	0.08714	0.20377
	2020.21	56.0	144.1	108.3	-0.75	6.16	1.40	0.01346	0.2349	-0.00024
	0.3021	418.0	7.39	5.79	0.70711	0.1950	0.009369	0.005546	0.001451	0.005087
			0.000	0.545						
PT 15	179.8	322.0	-4.4	-0.54	1.56	1.64	2.0	0.070533	-0.003083	0.000714
	93.0	C.7201	29.95	914.241	1.31	6.90	12.13	0.000647	0.002316	-0.002777
	0.2592	C.3600	10.01	73.0F	0.24	-0.	-2.5	0.0710	0.07363	0.00061
	2024.44	119.0	177.8	135.0	-0.70	5.72	0.844	0.03213	1.0636	-0.00010
	0.0070	421.5	7.51	7.18	0.79722	0.1990	0.010636	0.003707	0.002218	0.203035
			0.000	1.059						
PT 18	180.0	315.0	-3.7	-0.54	1.55	1.65	2.0	0.077783	-0.002822	0.001184
	53.9	0.7277	29.95	516.701	1.31	6.53	13.30	-0.000407	0.002685	-0.004485
	0.2533	0.3563	10.46	21.22	0.39	-0.	-2.1	0.0778	0.07606	0.00017
	2025.41	120.0	181.7	186.6	-0.78	5.87	0.77	0.00155	1.1017	-0.00261
	0.0020	417.5	7.42	7.10	0.80693	0.2159	0.011017	0.003657	0.002517	0.004015
			0.000	1.094						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1 2F 3A 4C 5E OF 7C

RUN	PT	VARIABLES					CONSTRAINTS					CONSTRAINT CODES				
		VKTS CPSE PTUN PST PHDIDD	FPM VDR TIPP TEMP CMEGR	THETA RAD PTC TEMPC WC CFCR100	X2P VJR PTP TEMP WP CPP100	XLEL XTEL XR XP CMUR100	FPO PTFT PT59L PT59T CPS100	ALFS,C L/N ANG/L FC CP/S	CLF/S CMV/S CT CMPH CPO/S	CVP/S CMZ/S CTM CPPI00 CO/S	CVP/S CMX/S CM CL00 CO/S					
3	181.9	320.7	-4.4	-0.49	1.57	1.55	2.0	0.069923	-0.006207	-0.000012						
	47.6	0.7311	29.93	857.819	1.35	6.12	8.14	0.002221	0.000070	-0.000550						
	207.76	0.3660	9.44	21.73	0.28	-0.	-5.1	0.0601	0.04135	0.00380						
	2017.28	56.0	151.6	162.7	-0.54	5.76	1.64	0.00778	0.9548	0.00080						
	0.0021	419.8	6.96	5.67	0.67501	0.1652	0.008548	0.005721	0.000051	0.004121						
			0.000	0.827												
5	181.0	318.9	-4.4	-0.49	1.57	1.54	2.0	0.066685	-0.005785	-0.001025						
	58.2	0.7218	29.93	848.816	1.34	5.56	8.37	0.001284	0.000429	-0.001220						
	0.7656	0.3630	9.28	21.55	0.30	-0.	-5.0	0.0768	0.09368	0.00346						
	2018.68	59.0	132.7	163.1	-0.58	5.55	1.53	0.00641	0.8835	0.00184						
	0.0021	417.5	7.31	7.01	0.71260	0.1591	0.008835	0.005385	0.000386	0.004185						
			0.000	0.871												
5	180.4	316.5	-4.4	-0.49	1.57	1.52	2.0	0.062320	-0.005433	0.000567						
	56.8	0.7303	29.93	846.335	1.34	5.52	8.15	0.002266	0.000827	0.000325						
	0.7635	0.3668	8.87	21.35	0.35	-0.	-5.0	0.0675	0.07787	0.00324						
	2070.15	104.0	138.2	162.7	-0.63	5.60	1.44	0.00647	0.8420	0.00284						
	0.0021	416.5	6.82	6.53	0.66993	0.1619	0.008420	0.005204	0.000818	0.004473						
			0.000	0.803												
6	180.6	320.1	-4.4	-0.49	1.58	1.52	2.0	0.067560	-0.005383	-0.003903						
	56.7	0.7276	29.93	852.117	1.34	6.00	8.65	-0.001048	0.001044	-0.001900						
	0.2634	0.3620	8.97	21.35	0.19	-0.	-4.6	0.0677	0.06325	0.00307						
	2020.24	106.0	129.4	165.0	-0.62	5.50	1.44	0.00440	0.8585	-0.00022						
	0.0021	419.0	6.82	6.54	0.67080	0.1753	0.008585	0.005278	0.000574	0.004438						
			0.000	0.758												

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2F 3M 4E 5C 6F 7G

RUN 32	VRTS	EDM	THETA	X2P	XLEL	FPO	ALFS,C	CLP/S	CMZ/S	CPV/S
PT 7	180.5	315.2	-4.0	0.02	0.85	1.56	2.0	0.064150	-0.004850	0.002441
	96.7	0.7294	29.91	831.880	1.34	5.45	8.96	-0.003519	0.002230	-0.003307
	0.2635	0.3613	8.42	21.81	0.24	-0.	-4.3	0.0643	0.06460	0.0241
	2018.78	105.0	190.9	183.3	-0.74	5.21	1.20	-0.00117	0.7413	0.0011
	0.0021	417.8	5.97	5.72	0.57531	0.1686	0.007413	0.004817	0.002110	0.005741
			0.000	0.759						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2F 3I 4F 5C 6E 7G

RUN 32	VRTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CMZ/S	CPV/S
PT 8	180.3	320.1	-4.0	0.60	-0.02	1.45	2.0	0.055676	-0.003993	0.001941
	96.3	0.7263	20.91	764.995	1.33	4.44	8.81	-0.002747	0.001711	-0.003370
	0.2630	0.3621	6.76	20.79	-0.01	-0.	-4.1	0.0558	0.06445	0.00205
	2019.15	106.0	197.7	183.7	-0.66	4.04	1.07	0.00026	0.6374	0.00334
	0.0021	419.1	5.76	5.51	0.50760	0.1691	0.006324	0.004784	0.001502	0.004185
			0.000	0.613						

DATA 1: THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 2E 3E 4E 5E 6A 7G

NUM	PT	WKS	CPSE	MTUN	PST	KH0100	FPM	V/OR	TIP4	TEMP	OMEGAR	THETA	PAR	PTC	TEMPC	WC	CPC0100	XZP	VJR	PTP	TEMPP	WP	CPR0100	XLEL	XTEL	XR	XP	CMUR100	FPU	PTRT	PT59L	PT59T	CPS100	ALFS.C	L/D	ANGX/L	FE	CP/S	CLP/S	CMY/S	CT	CMRH	CP0/S	CXR/S	CMZ/S	CTH	CPR100	CO/S	CYR/S	CMX/S	CM	CL0R	COM/S
32	6	175.3	96.6	0.7633	2020.27	0.0021	315.5	0.7727	0.3644	98.0	418.7	-3.1	20.93	-0.18	104.2	0.98	0.000	0.01	1071.404	14.64	113.7	0.96	0.011	-0.01	1.35	-0.38	0.20	0.12258	1.04	-0.25	0.	0.02	0.2787	2.0	0.25	-59.4	0.79	0.004356	0.001708	0.006106	0.3018	0.00904	0.004876	-0.002891	0.001947	0.01407	0.4354	0.004093	0.004496	0.001572	0.00783	0.00783	0.004093

DATA 2: THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 2E 3E 4E 5E 6A 7G

NUM	PT	WKS	CPSE	MTUN	PST	KH0100	FPM	V/OR	TIP4	TEMP	OMEGAR	THETA	PAR	PTC	TEMPC	WC	CPC0100	XZP	VJR	PTP	TEMPP	WP	CPR0100	XLEL	XTEL	XR	XP	CMUR100	RPU	PTRT	PT59L	PT59T	CPS100	ALFS.C	L/D	ANGX/L	FE	CP/S	CLP/S	CMY/S	CT	CMRH	CP0/S	CXR/S	CMZ/S	CTH	CPR100	CO/S	CYR/S	CMX/S	CM	CL0R	COM/S
30	7	180.8	96.6	0.2677	2020.58	0.0021	330.0	0.7062	0.3791	85.0	432.0	-3.9	20.98	-0.51	86.6	-0.10	0.000	-0.02	1048.573	13.60	99.5	-0.10	0.000	1.16	1.34	-0.03	-0.01	-0.01139	0.97	-0.23	0.	-0.04	0.3301	-2.0	-2.51	-172.2	0.69	0.003163	-0.017862	0.006411	-0.0178	0.00716	0.004589	-0.002433	0.002743	0.01343	0.3163	0.003028	0.004745	0.002225	0.00304	0.01439	0.004715

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 2G 3B 4E 5E 6A 7J

POINT	VKTS	KPM	THETA	X2P	XLEL	RPP	ALFS+C	CLP/S	CRP/S	CRP/S
RUN 30										
PT 5	180.5	330.5	-3.9	-0.03	1.18	0.97	4.0	0.003917	-0.002084	0.002854
	93.5	0.7042	25.98	1049.820	1.35	-0.24	0.68	0.009776	0.001433	0.002972
	C.2662	0.3782	-0.37	13.63	-0.03	0.	-28.0	0.0041	0.03632	0.00191
	2021.54	93.0	103.9	50.8	-0.01	0.01	0.59	0.01125	0.3288	0.00655
	0.0021	432.6	0.53	0.57	0.06000	0.2560	0.003288	0.704076	0.001636	0.00192
			0.000	0.000						
PT 10	180.5	330.6	-6.4	-0.02	1.02	0.97	4.0	-0.003147	-0.002001	0.004274
	93.7	0.7041	25.98	1051.065	1.35	-0.19	-1.37	0.007727	0.001654	0.004741
	0.2661	C.3780	-0.22	13.63	-0.03	0.	-167.7	-0.0090	0.01866	0.00263
	2021.70	94.0	46.1	42.1	-0.01	-0.02	0.57	0.00887	0.4024	0.01436
	0.0021	432.8	0.54	0.53	0.06125	0.3280	0.004024	0.004491	0.002330	0.003730
			0.000	0.000						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 2G 3C 4F 5C 6E 7E

POINT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS+C	CLP/S	CRP/S	CRP/S
RUN 30										
PT 21	179.9	330.6	-3.2	-0.54	0.89	1.44	0.0	0.048753	-0.003548	0.002730
	93.5	0.7018	25.98	831.297	1.34	5.45	7.03	0.001607	0.002270	-0.002607
	0.2585	C.3683	8.79	20.34	0.44	-0.	-4.2	0.00489	0.07654	0.00355
	2026.98	123.0	195.1	184.3	-0.66	4.83	1.02	0.00454	0.8735	0.00255
	0.0020	432.7	6.61	6.34	0.51006	0.2375	0.008235	0.004671	0.002770	0.004514
			0.000	0.655						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 26 3F 4E 5D 6A 7G

MIN PT	WKTS	RPM	THETA	XZP	XLEL	RPO	ALFS,C	CLP/S	CXZ/S	CYZ/S
180.9	332.3	-3.2	-3.2	0.86	0.57	2.0	-0.001705	-0.002157	-0.002157	0.004757
100.2	0.7021	29.98	1047.324	1.34	-0.28	-0.28	0.007378	0.002160	0.002160	0.001532
0.2682	0.3620	-0.41	13.60	-0.01	0.	-128.3	-0.0016	0.02818	0.02818	0.00721
2020.23	88.0	82.0	8.2	-0.01	-0.03	0.62	0.00051	0.4087	0.4087	0.00639
0.0321	435.C	0.99	3.97	0.10988	0.2764	0.004087	0.004278	0.002212	0.002212	0.001724
		0.000	0.000							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 26 3C 4E 5D 6E 7E

MIN PT	WKTS	RPM	THETA	XZP	XLEL	RPO	ALFS,C	CLP/S	CXZ/S	CYZ/S
179.9	325.3	-3.1	-3.1	0.97	1.45	0.0	0.050754	-0.00328	-0.00328	0.003432
53.1	0.7066	25.58	811.947	1.33	5.17	7.57	-0.002221	0.002870	0.002870	-0.002690
0.2483	0.3665	7.94	20.35	0.34	-0.	-3.7	0.0508	0.07604	0.07604	0.00224
2027.12	124.0	189.9	181.4	-0.72	4.82	0.92	-0.00059	0.7806	0.7806	0.00119
3.0070	431.1	5.26	6.00	0.56978	0.2443	0.007809	0.004461	0.002870	0.002870	0.004888
		0.000	0.000							

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DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1E	2G	3C	4E	5D	6E	7G																	
							VKTS	FPM	THETA	X2P	XLEL	FPO	ALFS-C	CLP/S	CXP/S	CVP/S	CMP/S	CMX/C	CW/S				
							QPSF	V/OR	PAR	VJR	XTEL	PT9T	L/D	CMY/S	CM7/S	CM7/S	CM7/S	CM7/S	CM7/S	CM7/S			
							MTUN	TIPM	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CTH	CTH	CTH	CTH	CTH	CTH		
							PST	TEMP	TEMPC	T-MPP	XP	PT59T	FE	CMH	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S		
							RFLD0	OMEGAR	MC	WP	CMUR100	CP5100	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	
									CPCRI00	CPPRI00													
RUN 30							179.7	330.4	-3.2	0.00	0.97	1.46	2.0	0.059056	-0.005435	-0.005435	0.001417						
PT 20							43.5	25.98	29.98	1.33	5.37	7.57	7.57	0.001724	0.001264	0.001264	-0.001462						
							0.2365	0.3687	7.94	0.59	-0.	-5.3	-5.3	0.00542	0.00652	0.00652	0.00337						
							2026.73	121.0	183.3	-0.60	5.01	1.56	1.56	0.00660	0.6870	0.6870	0.00090						
							0.0020	432.5	6.06	0.55036	0.1666	0.006870	0.006870	0.005118	0.001216	0.001216	0.004674						
								0.000	0.000														

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1E	2G	3C	4E	5E	6A	7E																	
							VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS-C	CLP/S	CXP/S	CVP/S	CMP/S	CMX/C	CW/S				
							QPSF	V/OR	PAR	VJR	XTEL	PT9T	L/D	CMY/S	CM7/S	CM7/S	CM7/S	CM7/S	CM7/S	CM7/S			
							MTUN	TIPM	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CTH	CTH	CTH	CTH	CTH	CTH		
							PST	TEMP	TEMPC	T-MPP	XP	PT59T	FE	CMH	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S		
							RFLD0	OMEGAR	MC	WP	CMUR100	CP5100	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	CP/S	
									CPCRI00	CPPRI00													
RUN 30							140.6	325.7	-3.3	1.10	0.57	0.0	0.0	-0.024261	-0.002830	-0.002830	0.007308						
PT 4							170.7	0.7062	29.98	1.33	-0.30	-3.61	-3.61	0.007679	0.003270	0.003270	0.006670						
							0.2689	0.3808	-0.16	-0.02	0.	-173.9	-173.9	-0.0243	0.00402	0.00402	0.00283						
							2019.74	83.0	85.5	0.00	-0.03	0.80	0.80	0.00504	0.4925	0.4925	0.01537						
							0.0022	431.6	1.37	0.14825	0.3133	0.004920	0.004920	0.005041	0.003270	0.003270	0.005100						
								0.000	0.000														

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 20 30 4E 5F 6A 7J

RUN 30 PT F	VKTS QPSF MTUN PST RH0100	FPM V/OR TIPM TEMP OMEGA*	THETA BAR PTC TEMPC MC CPCR100	XZP VJR PTP TEMP WP CPPR100	XLEL XTEL XR XP CMUR100	RPO PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE C/P/S	CLR/S CMV/S CT CMPH CPO/S	CXP/S CMZ/S CTH CPP100 CQ/S	CYR/S CMX/S CM CL*PH CPO/S
180.6	331.5	-3.2	-0.03	1.19	0.57	4.0	0.015102	-0.002306	0.000530	
99.2	0.7025	25.98	1047.324	1.34	-0.26	3.13	0.010116	0.000857	-0.001911	
0.7667	0.3757	-0.42	11.59	-0.04	0.	-8.2	0.0162	0.05675	0.00118	
2021.28	92.0	111.8	18.2	-0.01	0.14	0.66	0.01360	0.1864	0.00015	
0.0021	433.5	-0.09	-0.09	-0.01040	0.1090	0.001864	0.003583	0.000772	0.002315	
		0.030	0.000							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 20 30 4E 5E 6C 7G

RUN 30 PT 15	VKTS QPSF MTUN PST RH0100	RPM V/OR TIPM TEMP OMEGA*	THETA BAR PTC TEMPC MC CPCR100	XZP VJR PTP TEMP WP CPPP100	XLEL XTEL XR XP CMUR100	RPO PTRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE C/P/S	CLP/S CMV/S CT CMPH CPO/S	CKW/S CMZ/S CTH CPR100 CQ/S	CYR/S CMX/S CM CL*PH CPO/S
180.6	326.9	-3.1	-0.04	1.07	1.21	2.0	0.044117	-0.002606	0.00115	
94.9	0.7123	29.58	606.139	1.34	2.78	8.02	0.002064	0.001500	-0.004490	
0.7605	0.1657	3.58	16.55	0.09	-0.	-3.4	0.0442	0.07427	0.00104	
2025.58	118.0	148.4	148.0	-0.86	2.88	0.73	0.00396	0.3628	-0.00227	
0.0020	427.9	3.21	3.10	0.22100	0.2067	0.003628	0.003722	0.001346	0.003005	
		0.030	0.162							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2G 3C 4F 5D 6C 7G

VRYS	KPM	TMTA	X2P	XLEL	FPO	ALFS,C	CLP/S	CVP/S	CVP/S
QPSF	V/DR	RAF	VJR	XTEL	PTRT	I/D	CMV/S	CM7/S	CM7/S
MTUN	TEMP	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CTH
PST	OMEGA*	TEMPC	TEMP	XP	PT59T	FE	CMFH	CPPI00	CPH
RH0100		MC	WP	CMUJ100	CPS100	CP/S	CPH/S	C/S	CPH/S
		CPCAL100	CPPR100						
179.6	329.9	-3.1	0.61	0.98	1.21	2.0	0.040133	-0.003126	0.002543
63.6	0.7020	29.98	630.248	1.34	2.90	6.74	0.001753	0.001984	-0.002865
C.2587	C.3685	3.92	17.00	0.24	-0.	-4.5	0.0402	0.04693	0.00172
2026.62	120.0	191.2	174.2	-0.89	2.66	0.90	0.00321	0.4163	0.00017
0.0020	431.9	4.26	4.09	0.29842	0.1985	0.004163	0.004014	0.001883	0.002917
		0.000	0.219						

RUN 30
PT 1C

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2G 3C 4F 5E 6C 7G

VRYS	KPM	TFLTA	X2P	XLEL	RPO	ALFS,C	CLP/S	CVP/S	CVP/S
QPSF	V/DR	RAR	VJR	XTEL	PTRT	I/D	CMV/S	CM7/S	CM7/S
MTUN	TEMP	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH	CTH
PST	OMEGA*	TEMPC	TEMP	XP	PT59T	FE	CMFH	CPPI00	CPH
RM0100		MC	WP	CMUJ100	CPS100	CP/S	CPH/S	C/S	CPH/S
		CPCRI100	CPPR100						
179.9	330.0	-3.1	0.61	1.06	1.21	2.0	0.037286	-0.003094	0.002364
63.8	0.7025	25.98	637.105	1.34	2.53	6.23	0.001616	0.001820	-0.002026
C.2585	C.3686	3.67	17.06	0.27	-0.	-4.7	0.0374	0.07220	0.00170
2026.69	120.0	185.6	172.9	-0.89	2.69	0.89	0.03370	0.3476	-0.00033
0.0020	432.0	2.78	2.70	0.19774	0.2030	0.003476	0.004060	0.001748	0.003378
		0.000	0.147						

RUN 30
PT 1R

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IC 20 30 40 50 60 70

POINT	VKTS	QPSF	WTUM	PST	PHI100	PPM	V/DR	T/ETA	X2P	XLEL	RPU	ALFS,C	CLP/S	CPZ/S	CMZ/S
PT 1	192.1					330.0		-2.2	-0.00	1.24	0.97	0.0	-0.007374	-0.001388	0.004149
	102.5					0.7114	25.98	25.98	1043.757	1.34	-0.26	-0.43	0.003373	0.002388	-0.004515
	0.2715					0.3816	-0.29	-0.29	13.61	-0.01	0.	-145.5	-0.002932	0.00135	0.00135
	2017.95					92.0	85.0	85.0	44.0	0.01	-0.02	0.39	0.00460	0.4841	0.00451
	0.0022					432.0	1.84	1.84	1.80	0.20366	0.2381	0.004941	0.003369	0.002388	0.003374
							0.000	0.000	0.000						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 20 30 40 50 60 70

POINT	VKTS	QPSF	WTUM	PST	PHI100	RPM	V/DR	T/ETA	X2P	XLEL	RPU	ALFS,C	CLP/S	CPZ/S	CMZ/S
PT 5	180.9					330.4		-2.0	-0.02	1.12	0.97	2.0	0.018955	-0.002210	0.003659
	100.6					0.7061	29.98	29.98	1044.923	1.34	-0.18	3.56	0.005526	0.001182	-0.004068
	0.2687					0.3805	-0.41	-0.41	13.60	-0.02	0.	-6.7	0.0189	0.05164	0.00152
	2019.88					86.0	111.1	111.1	85.6	-0.00	0.02	0.63	0.01275	0.3969	-0.00237
	0.0027					417.5	1.32	1.32	1.30	0.14801	0.2181	0.003969	0.003705	0.000970	0.002405
							0.000	0.000	0.000						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2H 3A 4E 5C 6A 7G

RUN 32 PT 5	VARIABLES				CONSTRAINTS				CONSTRAINT CODES			
	VKTS CPSE MTUM PST RHOLCO	RPM V/OP TIPO TEMP OMEGAR	THETA PAR PTC TEMPC WC CPCRI00	X2P VJR PTP TEMP WP CPPRI00	XLEL XTEL XR XP CMUP100	RPO PRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CP/S	CLP/S CMV/S CT CMH CPI/S	CFP/S CMZ/S CTH CPH CPS	CFP/S CMZ/S CTH CPH CPS		
	180.6 98.0 0.2651 2018.91 0.0021	344.0 0.6758 0.1926 98.0 451.1	-3.8 29.93 -2.38 101.9 -0.08 0.000	0.02 1070.182 14.55 112.4 -0.08 -0.001	-0.01 1.34 -0.09 0.00 -0.00929	1.04 -0.74 0. 0.18 0.1089	2.0 -7.32 -171.6 0.73 0.002579	-0.016095 0.004164 -0.0160 0.00730 0.004659	-0.002364 0.002511 0.00247 0.2970 0.002805	0.005633 0.008463 0.00282 0.01244 0.004374		

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2H 3C 4E 5C 6A 7G

RUN 32 PT 7	VARIABLES				CONSTRAINTS				CONSTRAINT CODES			
	VKTS CPSE MTUM PST RHOLCO	RPM V/OP TIPO TEMP OMEGAR	THETA PAR PTC TEMPC WC CPCRI00	X2P VJR PTP TEMP WP CPPRI00	XLEL XTEL XR XP CMUR100	RPO PRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CP/S	CLP/S CMV/S CT CMH CPI/S	CFP/S CMZ/S CTH CPH CPS	CFP/S CMZ/S CTH CPH CPS		
	180.6 98.1 0.2655 2018.77 0.0021	346.3 0.6724 0.1926 97.0 453.3	-3.2 29.93 -0.48 107.2 0.51 0.000	0.01 1006.959 17.50 111.1 0.50 0.004	-0.01 1.34 -0.07 0.01 0.05435	1.03 -0.14 0. 0.11 0.2665	2.0 -0.20 -116.9 0.79 0.003305	-0.001284 0.006072 -0.0012 0.00632 0.004369	-0.002534 0.001741 0.01862 0.3306 0.001843	0.003943 0.007855 0.0759 0.01548 0.003547		

DATA II THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1E 2M 3A 4E 5C 6A 7G

VARIABLES	VARIABLES		VARIABLES		VARIABLES		VARIABLES		VARIABLES		VARIABLES		VARIABLES	
	VKTS	OPSF	MTUN	PST	PHC100	OMEGA	THETA	X2P	XLEL	FPO	ALFS,C	CIP/S	CMZ/S	CMY/S
RUN 32	183.7	345.7	-2.1	0.00	-0.01	1.04	2.0	0.016744	-0.002184	0.003739	0.016744	-0.002184	0.003739	0.016744
PT 3	53.4	0.6740	29.93	1068.653	1.35	-0.27	3.06	0.00366	0.001157	-0.003629	0.00366	0.001157	-0.003629	0.00366
	0.2659	0.3945	-0.17	14.51	-0.11	0.	-7.4	0.0168	0.0327	0.00160	0.0168	0.0327	0.00160	0.0168
	2618.45	56.0	105.5	110.8	-0.19	0.11	3.63	0.01155	-0.1583	-0.00101	0.01155	-0.1583	-0.00101	0.01155
	0.0021	452.5	-2.99	-2.97	-0.37167	0.2215	-0.001583	0.003657	0.001003	0.002465	0.003657	0.001003	0.002465	0.003657
			0.000	-0.022										

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -

1E 2I 3A 4P 5E 6E 7G

VARIABLES	VARIABLES		VARIABLES		VARIABLES		VARIABLES		VARIABLES		VARIABLES		VARIABLES	
	VKTS	OPSF	MTUN	PST	PHC100	OMEGA	THETA	X2P	XLEL	FPO	ALFS,C	CIP/S	CMZ/S	CMY/S
RUN 40	174.5	375.6	-4.5	-0.69	1.57	1.46	2.0	0.038697	-0.001556	-0.001462	0.038697	-0.001556	-0.001462	0.038697
PT 11	99.3	0.6111	29.98	795.602	1.31	4.99	7.12	-0.000160	0.001854	-0.001455	-0.000160	0.001854	-0.001455	-0.000160
	0.2669	0.4367	7.58	20.45	-0.71	-0.	-2.3	0.0387	0.05794	0.00070	0.0387	0.05794	0.00070	0.0387
	2021.17	87.0	173.9	172.9	-0.31	4.50	0.59	0.00008	0.5467	-0.00073	0.00008	0.5467	-0.00073	0.00008
	0.0077	496.9	6.09	5.84	0.38400	0.2373	0.005467	0.003147	0.001867	0.002617	0.003147	0.001867	0.002617	0.003147
			0.000	0.376										

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 2I 3A 4P 5E 6F 7G

RUN NO	PT	WKTS	OPSF	MJUN	PST	RHD100	APM	THETA	XZP	XLEL	PPD	ALFS,C	CLP/S	CMZ/S	CPD100	CP/S	CMZ/S	CMZ/S	CMZ/S	CMZ/S
PT 17	180.1	379.3	-4.5	29.98	903.822	1.55	1.60	2.0	0.04017	0.002452	0.000986	0.002320	0.002320	0.002320	0.002320	0.002320	0.002320	0.002320	0.002320	0.002320
	55.3	0.6122	29.98	10.05	22.50	1.30	6.86	7.29	-0.00181	0.07475	-0.001127	0.07475	0.07475	0.07475	0.07475	0.07475	0.07475	0.07475	0.07475	0.07475
	0.2669	0.4360	10.05	150.3	172.2	-0.14	-0.09	-2.9	0.00481	0.00061	0.00077	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061
	2021.14	8P.0	150.3	7.52	7.20	-0.52	5.83	0.92	0.00061	0.00061	-0.00019	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061
	0.0021	456.4	0.000	0.000	0.577	0.54008	0.2534	0.007450	0.001763	0.002279	0.003500	0.002279	0.002279	0.002279	0.002279	0.002279	0.002279	0.002279	0.002279	0.002279
PT 13	180.0	375.5	-4.5	29.98	975.100	1.56	1.72	2.0	0.056907	0.002623	-0.001154	0.002623	0.002623	0.002623	0.002623	0.002623	0.002623	0.002623	0.002623	0.002623
	49.1	0.6110	29.98	12.41	24.15	1.31	8.11	8.15	-0.000961	0.07815	-0.002577	0.07815	0.07815	0.07815	0.07815	0.07815	0.07815	0.07815	0.07815	0.07815
	0.2666	0.4363	12.41	167.3	187.6	0.01	-0.09	-2.6	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061	0.00061
	2021.38	AC.0	167.3	8.67	8.30	-0.60	6.41	0.09	0.00023	0.002487	-0.001154	0.002487	0.002487	0.002487	0.002487	0.002487	0.002487	0.002487	0.002487	0.002487
	0.0021	457.3	0.000	0.000	0.772	0.67016	0.7658	0.009278	0.001880	0.002487	0.003110	0.002487	0.002487	0.002487	0.002487	0.002487	0.002487	0.002487	0.002487	0.002487
PT 14	180.1	379.5	-4.5	29.98	559.766	1.57	1.70	2.0	0.052363	0.002772	0.000637	0.002772	0.002772	0.002772	0.002772	0.002772	0.002772	0.002772	0.002772	0.002772
	59.2	0.6119	29.98	12.46	23.91	1.30	7.76	7.87	0.000766	0.07637	-0.002464	0.07637	0.07637	0.07637	0.07637	0.07637	0.07637	0.07637	0.07637	0.07637
	0.2667	0.4359	12.46	164.7	188.6	0.11	-0.09	-3.0	0.00524	0.00079	0.00064	0.00079	0.00079	0.00079	0.00079	0.00079	0.00079	0.00079	0.00079	0.00079
	2021.28	85.0	164.7	8.93	8.56	-0.64	6.40	1.05	0.00079	0.002754	-0.000703	0.002754	0.002754	0.002754	0.002754	0.002754	0.002754	0.002754	0.002754	0.002754
	0.0021	456.8	0.000	0.000	0.786	0.68159	0.2375	0.008959	0.003748	0.002754	0.004127	0.002754	0.002754	0.002754	0.002754	0.002754	0.002754	0.002754	0.002754	0.002754
PT 16	180.1	379.1	-4.5	29.98	859.070	1.58	1.60	2.0	0.050292	0.002717	-0.001197	0.002717	0.002717	0.002717	0.002717	0.002717	0.002717	0.002717	0.002717	0.002717
	97.5	0.6126	29.98	10.43	22.52	1.30	6.75	8.52	0.002264	0.002151	-0.001419	0.002151	0.002151	0.002151	0.002151	0.002151	0.002151	0.002151	0.002151	0.002151
	0.2643	0.4314	10.43	146.4	174.2	-0.01	-0.09	-3.1	0.00504	0.00384	0.00064	0.00384	0.00384	0.00384	0.00384	0.00384	0.00384	0.00384	0.00384	0.00384
	2022.59	99.0	146.4	7.85	7.52	-0.44	5.87	1.02	-0.00556	0.00132	0.00030	0.00132	0.00132	0.00132	0.00132	0.00132	0.00132	0.00132	0.00132	0.00132
	0.0021	456.2	0.000	0.000	0.616	0.57206	0.1950	0.007132	0.001217	0.002100	0.001447	0.002100	0.002100	0.002100	0.002100	0.002100	0.002100	0.002100	0.002100	0.002100
PT 19	180.3	381.3	-4.5	29.98	859.302	1.56	1.60	2.0	0.051549	0.002556	-0.001266	0.002556	0.002556	0.002556	0.002556	0.002556	0.002556	0.002556	0.002556	0.002556
	57.5	0.6055	29.98	10.18	27.44	1.30	6.75	9.12	0.00510	0.002033	-0.002442	0.002033	0.002033	0.002033	0.002033	0.002033	0.002033	0.002033	0.002033	0.002033
	0.2643	0.4336	10.18	133.8	174.5	-0.08	-0.09	-2.8	0.00516	0.006748	0.00076	0.006748	0.006748	0.006748	0.006748	0.006748	0.006748	0.006748	0.006748	0.006748
	2022.59	100.0	133.8	7.36	7.05	-0.46	5.84	0.97	-0.00717	0.001933	-0.00065	0.001933	0.001933	0.001933	0.001933	0.001933	0.001933	0.001933	0.001933	0.001933
	0.0021	455.1	0.000	0.000	0.565	0.53145	0.1889	0.006677	0.001333	0.001933	0.001183	0.001933	0.001933	0.001933	0.001933	0.001933	0.001933	0.001933	0.001933	0.001933

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 21 3A 4P 5E 6F 7H

POINTS	VKTS	RPM	THETA	X2P	XLEL	FPO	ALFS,C	CLP/S	CRP/S	CMV/S
FUR 40	180.3	375.7	-4.5	-0.69	1.57	1.60	3.0	0.055127	-0.003364	-0.000914
PT 7J	57.5	0.6122	25.98	909.367	1.30	6.55	A.RR	-0.001076	0.002220	-0.002464
	0.2543	0.4317	10.49	22.46	-0.06	-0.	-3.5	0.0552	0.07534	0.00047
	2022.56	100.0	143.1	174.2	-0.64	5.90	1.27	-0.00938	0.6904	-0.00118
	0.0021	497.0	7.80	7.47	0.57431	0.1740	0.006594	0.003462	0.007095	0.003767
			0.000	0.607						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 21 3A 4P 5E 6F 7J

POINTS	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLP/S	CRP/S	CMV/S
FUR 40	180.4	380.0	-4.5	-0.68	1.57	1.60	4.0	0.057559	-0.003962	-0.000617
PT 21	57.5	0.6122	29.98	914.655	1.91	7.05	A.68	-0.000486	0.001871	-0.001572
	0.2643	0.4317	10.84	22.51	0.12	-0.	-3.9	0.0577	0.08412	-0.00004
	2022.96	101.0	142.8	174.5	-0.75	5.90	1.49	0.00037	0.7173	-0.00019
	0.0021	497.5	A.14	7.75	0.60249	0.1635	0.007173	0.003671	0.001730	0.002766
			0.000	0.636						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2I 3R 4F 5E 6C 7G

POINT	VKTS	QPSF	MTUN	PST	RMT100	RPM	V/OR	TIPM	TFMP	OMEGA	THETA	RAF	PTC	TEMPC	WC	CPCP100	X2P	VJR	PTP	TFMP	WP	CPPP100	XLEL	XTEL	XR	XP	CMUR100	RPO	PTRT	PT59L	PT59T	CPS100	ALFS,C	L/D	ANGX/L	FE	CP/S	CLP/S	CMY/S	CT	CMFH	CPI/S	CVP/S	CMX/S	CTM	CL=H	COM/S	
40	180.4	58.6	0.2655	2021.97	0.0021	379.3	0.6132	0.4316	54.0	496.5	-4.0	29.98	5.11	159.2	4.73	0.000	-0.59	685.420	18.16	157.8	4.54	0.202	1.56	1.28	-0.12	-0.54	0.26110	1.29	3.61	-0.	3.53	0.1791	0.003593	2.0	6.29	-2.7	0.46	0.026067	0.002123	0.0261	-0.07676	0.002460	0.001184	0.002476	0.05356	0.3591	0.00754	0.003145
27	150.4	57.4	0.2642	2023.01	0.0021	375.5	0.6129	0.4311	101.0	456.8	-4.0	29.98	5.40	167.0	4.87	0.000	-0.69	650.093	18.15	164.1	4.68	0.212	1.59	1.32	-0.32	-0.37	0.27388	1.29	3.63	-0.	3.44	0.2212	0.004114	2.0	6.09	-7.7	0.56	0.031007	0.002384	0.0310	0.00326	0.00436	0.02058	0.05491	0.4114	0.00047	0.00178	0.002040

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1E 2I 3R 4F 5E 6F 7G

POINT	VKTS	QPSF	MTUN	PST	RMT100	RPM	V/OR	TIPM	TEMP	OMEGA	THETA	BAR	PTC	TEMPC	WC	CPCP100	X2P	VJR	PTP	TFMP	WP	CPPP100	XLEL	XTEL	XR	XP	CMUR100	RPO	PTRT	PT59L	PT59T	CPS100	ALFS,C	L/D	ANGX/L	FE	CP/S	CLP/S	CMY/S	CT	CMFH	CPI/S	CVP/S	CMX/S	CTM	CL=H	COM/S			
43	180.3	57.6	0.2645	2022.80	0.0021	379.2	0.6129	0.4316	99.0	456.4	-4.0	29.98	9.08	152.6	7.11	0.010	-0.69	867.729	21.37	173.5	6.81	0.499	1.56	1.29	0.35	-0.51	0.50005	1.52	6.18	-0.	5.43	0.1515	0.005885	2.0	3.45	-3.6	1.07	0.044000	0.004971	0.0440	-0.07284	0.003021	-0.000535	0.001566	0.05832	0.5885	0.00723	0.001184	0.001577	0.001981

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 2J 3C 4B 5E 6A 7E

PUN 50 PT 10	CONSTRAINT CODES				CONSTRAINT CODES				CONSTRAINT CODES				CONSTRAINT CODES			
	VKTS QPSF WTUN PST RHU100	RPM V/DI TIPM TEMP CMEGAR	THETA BAR PTC TEMPC WC CPCRI00	X2P VJR PTP TEMP WP CPPH100	XLEL XTEL XR XP CMUK100	PPD PTRT PT59L PT59T CPS100	ALFS.C L/D ANGX/L FE CP/S	CLP/S CMY/S CT CMPH CPO/S	CRP/S CMZ/S CTH CPR100 CQ/S	CVP/S CMV/S CM CL 5M CON/S						
	179.6	390.2	-3.1	-0.69	1.56	1.07	0.0	-0.007715	-0.000414	0.002724						
	101.0	0.5543	29.98	401.822	1.31	1.15	-1.60	0.002257	0.002834	0.004549						
	0.2693	0.4531	1.46	15.03	-0.65	-0.	-176.9	-0.0077	0.01062	0.00041						
	2015.46	77.0	146.1	142.8	-0.40	1.33	0.17	0.00344	0.2937	0.00777						
	0.0022	510.7	2.72	2.63	0.08140	0.2617	0.002937	0.002956	0.002836	0.003073						
			0.000	0.028												

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 2K 3A 4P 5E 6E 7C

PUN 50 PT 10	CONSTRAINT CODES				CONSTRAINT CODES				CONSTRAINT CODES				CONSTRAINT CODES			
	VKTS QPSF WTUN PST RHU100	RPM V/DI TIPM TEMP CMEGAR	THETA BAR PTC TEMPC WC CPCRI00	X2P VJR PTP TEMP WP CPPH100	XLEL XTEL XR XP CMUK100	PPD PTRT PT59L PT59T CPS100	ALFS.C L/D ANGX/L FE CP/S	CIP/S CMY/S CT CMPH CPO/S	CRP/S CMZ/S CTH CPR100 CQ/S	CVP/S CMV/S CM CL 5M CON/S						
	180.1	403.7	-4.5	-0.69	1.56	1.45	2.0	0.031278	-0.001150	-0.000531						
	99.5	0.5753	29.98	804.671	1.30	5.14	5.87	-0.000163	0.002243	0.001334						
	0.2672	0.4645	7.63	20.35	-0.70	-0.	-7.1	0.0112	0.04053	0.00004						
	2020.53	87.0	170.9	171.6	-0.34	4.53	0.49	0.00026	0.4938	0.00235						
	0.0022	528.4	5.90	5.67	0.33328	0.2401	0.004939	0.002540	0.002288	0.002877						
			0.000	0.300												

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 2K 3A 4P 5E 6F 7G

PT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLF/S	CXR/S	CYR/S
180.2	400.9	-4.5	-0.69	1.56	1.72	2.0	0.052427	0.052427	-0.002705	-0.001747
43.9	0.5796	29.9E	950.402	1.30	7.56	7.14	-0.000507	-0.000507	0.002592	-0.000370
0.2464	0.4596	12.51	24.11	-0.24	-0.	-3.1	0.0525	0.0525	0.0766A	0.00096
2021.52	91.0	163.1	188.9	-0.45	6.25	1.18	-0.00045	-0.00045	0.8021	-0.00147
0.0021	524.8	8.75	9.38	0.5946C	0.2637	0.008021	0.00315	0.00315	0.00256A	0.00386A
		0.000	0.665							

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IE 2K 3A 4P 5E 6E 7G

PT	VKTS	RPM	THETA	X2P	XLEL	RPO	ALFS,C	CLF/S	CXR/S	CYR/S
180.0	403.4	-4.1	-0.69	1.57	1.46	2.0	0.039155	0.039155	-0.001654	-0.001130
99.9	0.5752	29.98	814.154	1.30	5.19	6.67	-0.000455	-0.000455	0.002152	-0.000125
0.2678	0.4655	7.74	23.43	-0.47	-0.	-2.5	0.0382	0.0382	0.046P	0.00012
2020.54	84.0	185.0	181.1	-0.44	4.58	0.71	0.03087	0.03087	0.4979	0.00044
0.0022	528.1	6.03	5.78	0.34268	0.2338	0.004079	0.003107	0.003107	0.002144	0.002016
		0.000	0.312							

DATA II. THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1c 2k 3c 4c 5l 6a 7f

VRIS	RPN	THETA	XZP	XLEL	RPO	ALFS,C	CLP/S	CRP/S	CVS/S
QPSF	V/OP	RAR	VJR	XTEL	PTRT	L/D	CMV/S	CM7/S	CMX/S
MTUN	TIPI	PTC	PTP	XR	PT59L	ANGX/L	CT	CTM	CM
PST	TEMP	TEMPC	TMPP	XP	PT59T	FE	CMPH	CP100	CLPH
RHN100	CMFCR	WC	WP	CMUR100	CP5100	CP/S	CPH/S	CP/S	CMH/S
		CPCR100	CPPR100						CMH/S
150.0	402.1	-3.3	-0.69	1.56	1.07	1.0	-0.002459	-0.000209	0.001761
103.8	0.5771	29.98	380.250	1.31	1.02	-0.63	0.004071	0.002255	0.004103
0.2650	0.4862	1.45	14.96	-0.69	-0.	-175.8	-0.0029	0.01681	0.00024
2019.65	75.0	148.0	143.1	-0.40	1.30	0.09	0.00274	0.2752	0.00448
0.0022	526.4	2.44	7.36	0.06529	0.2516	0.002752	0.002636	0.002326	3.032445
		0.000	0.022						

RUN 40
PT *

DATA II. THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1c 2k 3c 4c 5l 6a 7g

VRIS	RPN	THETA	XZP	XLEL	RPO	ALFS,C	CLP/S	CRP/S	CVS/S
QPSF	V/OP	RAR	VJR	XTEL	PTRT	L/D	CMV/S	CM7/S	CMX/S
MTUN	TIPI	PTC	PTP	XR	PT59L	ANGX/L	CT	CTM	CM
PST	TEMP	TEMPC	TMPP	XP	PT59T	FE	CMPH	CP100	CLPH
RHN100	CMFCR	WC	WP	CMUR100	CP5100	CP/S	CPH/S	CP/S	CMH/S
		CPCR100	CPPR100						CMH/S
175.8	402.5	-3.2	-0.69	1.56	1.07	2.0	0.006970	-0.000514	0.003464
100.4	0.5760	29.98	393.448	1.31	1.10	1.61	0.004669	0.001620	0.001065
0.2685	0.4862	1.25	14.95	-0.68	-0.	-4.3	0.0069	0.02755	0.00027
2020.02	80.0	149.7	145.1	-0.39	1.27	0.22	0.00558	0.2744	0.00376
0.0022	526.9	1.77	1.73	0.06956	0.2156	0.002344	0.002449	0.001657	0.001649
		0.000	0.016						

RUN 40
PT *

DATA IF THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 2K 3C 4P 5E 6C 7G

GROUP	POINTS	VKTS	OPSF	MTUN	DST	RND100	THETA	BAR	PTC	TEMPC	WC	CPCP100	X2P	VJR	PTP	TEMP	WP	CPPR100	XLEL	XTEL	XR	XP	CMUR100	RPD	PTRT	PT59L	PT59T	CPS100	ALFS+C	L/D	ANGX/L	FE	CP/S	CLP/S	CMY/S	CT	CMFH	CP/S	CXR/S	CMZ/S	CTM	CPM100	CON/S	CVR/S	CMX/S	CM	CLASH	CON/S
RUN 40	PT 6	175.9	0.5710	0.4701	81.0	2020.09	-3.2	29.98	4.07	151.6	4.15	0.0022	-0.69	647.549	17.33	1.8.4	3.99	0.115	1.56	1.31	-0.43	-0.79	0.18452	1.24	3.22	-0.	3.10	0.2133	2.0	6.57	-1.0	0.20	0.003757	0.027562	0.001691	0.0276	0.00164	0.002300	-0.000460	0.001555	0.04747	0.3257	0.001944	-0.000450	-0.001437	-0.00050	0.00023	0.102110

DATA IF THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 2K 3C 4P 5E 6E 7G

GROUP	POINTS	VKTS	OPSF	MTUN	DST	RND100	THETA	BAR	PTC	TEMPC	WC	CPCP100	X2P	VJR	PTP	TEMP	WP	CPPR100	XLEL	XTEL	XR	XP	CMUR100	RPD	PTRT	PT59L	PT59T	CPS100	ALFS+C	L/D	ANGX/L	FE	CP/S	CLP/S	CMY/S	CT	CMFH	CP/S	CXR/S	CMZ/S	CTM	CPM100	CON/S	CVR/S	CMX/S	CM	CLASH	CON/S
RUN 40	PT 7	175.9	0.5715	0.4698	83.0	2020.44	-3.2	29.98	7.79	185.6	6.14	0.0022	-0.69	832.015	20.30	179.4	5.89	0.306	1.57	1.31	0.21	-0.83	0.35184	1.45	5.49	-0.	4.87	0.2338	2.0	8.00	-1.6	0.49	0.035053	0.041768	-0.000333	0.07418	0.00027	0.002765	-0.001131	0.002302	0.06236	0.5053	0.002320	-0.000527	-0.002020	-0.00013	-0.00046	0.002747

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
IF 2X 3C 4C 5A 6C 7E

ROW 29 PT 3	VPTS QPSF MTUN PST RHO100	FPM V/OR TIPP TEMP OMEGA	THETA BAR PTC TEMPC WC	X2P VJR PTP TEMP WP	XLEL XTEL XR XP CMUR100	PPO PRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FC CPS	CLP/S CMV/S CT CMPH CPS	CXP/S CMZ/S CTH CPS100 CPS	CVP/S CMX/S CM CLM CPS
	184.6	403.6	-2.5	-0.48	-1.39	1.24	0.0	0.014141	-0.000423	0.000199
	106.2	3.5899	30.03	625.87C	1.31	2.86	2.64	0.000537	0.002356	0.000687
	0.2764	0.4665	3.50	17.37	0.17	-0.	-1.7	0.0141	0.02428	0.00042
	2017.91	78.0	181.4	170.3	-0.81	2.88	0.17	0.00159	0.03471	0.00290
	0.0022	528.3	2.17	7.12	0.09538	0.2906	0.003471	0.001131	0.002356	0.002581
			0.000	0.065						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
IF 2X 3C 4C 5E 6C 7E

ROW 29 PT 4	VKTS QPSF MTUN PST RHO100	KPM V/OR TIPM TEMP OMEGA	THETA RBP PTC TEMPC WC	Y2P VJR PTP TEMP WP	XLEL XTEL XR XP CMUR100	FPO PRT PT59L PT59T CPS100	ALFS,C L/D ANGX/L FE CPS	CLP/S CMV/S CT CMPH CPS	CXP/S CMZ/S CTH CPS100 CPS	CVP/S CMX/S CM CLM CPS
	186.2	403.6	-3.2	-0.48	1.53	1.25	0.0	0.010543	-0.001411	0.002325
	107.3	3.5897	30.03	637.595	1.33	2.57	1.74	-0.000156	0.002155	0.001607
	0.2775	0.4673	3.76	17.46	-0.64	-0.	-7.6	0.0105	0.02379	0.00141
	2016.72	81.0	150.9	173.5	-0.66	2.54	3.54	0.00041	0.03418	0.00502
	0.0022	528.4	3.49	3.37	0.15571	0.2678	0.003618	0.001504	0.002155	0.002901
			0.000	0.107						
	166.1	404.8	-3.2	-0.48	1.52	1.25	0.0	0.008403	-0.001401	0.002173
	106.7	0.5528	30.03	623.635	1.32	2.82	1.42	-0.001118	0.002172	0.002708
	0.2770	0.4673	3.91	17.47	-0.61	-0.	-10.8	0.0089	0.02082	0.00169
	2017.37	84.0	175.7	174.8	-0.68	2.83	0.68	-0.00091	0.03418	0.00502
	0.0022	525.9	3.59	3.46	0.15617	0.2659	0.003618	0.003693	0.002172	0.002901
			0.000	0.110						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 2K 3D 4C 5F 6C 7D

PKTS	RPM	THETA	XZP	XLEL	FPO	ALFS,C	CLP/S	CRP/S	CRV/S
QPSF	V/QR	RAR	VJR	XTEL	PTRT	L/D	CT	CTH	CM
PTUM	TJPM	PTC	PTP	XP	PT59L	ANGX/L	CPH	CPH100	CMH
PST	TFMP	TEPPC	TEPP	XP	PT59T	FE	CPH/S	CPH/S	CPH/S
RHD100	OMEGAR	WC	WP	CMUR100	CP5100	CP/S			
		CPCR100	CPPP100						
PT 10	402.9	-2.1	-0.48	1.54	1.25	-1.0	0.018011	-0.000780	0.001845
	0.6046	30.04	622.453	1.32	2.79	3.59	0.000786	0.002147	-0.002987
	0.2766	3.96	17.50	-0.08	-0.	-2.5	0.0180	0.03415	0.00109
	2018.28	186.3	178.1	-0.70	3.11	0.30	0.00138	0.3431	0.00127
	0.0021	3.75	3.14	0.14766	0.2559	0.003431	0.002962	0.002179	0.002611
		0.000	0.106						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 2K 3D 4C 5E 6C 7E

PKTS	RPM	THETA	XZP	XLEL	RPO	ALFS,C	CLP/S	CRP/S	CRV/S
QPSF	V/QR	RAR	VJR	XTEL	PTRT	L/D	CT	CTH	CM
PTUM	TJPM	PTC	PTP	XR	PT59L	ANGX/L	CPH	CPH100	CMH
PST	TFMP	TEPPC	TEPP	XP	PT59T	FE	CPH/S	CPH/S	CPH/S
RHD100	OMEGAR	WC	WP	CMUR100	CP5100	CP/S			
		CPCR100	CPPP100						
PT 11	403.2	-2.1	-0.48	1.52	1.27	0.0	0.027734	-0.001354	0.0009635
	0.5681	30.04	646.683	1.31	3.05	4.89	0.001835	0.001781	-0.002786
	0.4647	4.27	17.78	0.03	-0.	-2.4	0.0277	0.03038	0.00135
	66.0	193.8	176.8	-0.79	3.09	0.54	0.00170	0.3755	-0.00276
	527.9	4.21	4.05	0.19188	0.2583	0.003755	0.003300	0.001781	0.002402
		0.000	0.142						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
IF 28 30 4C 5E 6D 7D

WKS	RPM	THETA	X2P	XLEL	FPO	ALFS,C	CLR/S	CVR/S
OPSF	V/CA	BAR	VJR	XTEL	PTAT	L/D	CMY/S	CMX/S
MTUN	TIMP	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH
PST	TEMP	TEMPC	TEMP	XP	PT59T	FE	CMFH	CLPH
RHM100	OMEGA	MC	WP	CMUR100	CPS100	CP/S	CPH/S	CPH/S
		CPCR100	CPPR100					
188.9	404.7	-2.1	-0.48	1.53	1.33	-0.5	0.025015	0.000554
106.8	0.6019	30.04	722.684	1.32	3.67	5.40	0.000142	-0.002145
0.2771	0.4604	5.57	13.62	0.11	-0.	-1.1	0.00780	0.00345
2017.91	100.0	208.5	186.3	-0.88	2.64	0.22	-0.00014	-0.000070
0.0021	525.7	5.04	4.84	0.26078	0.2790	0.004569	0.003030	0.002607
		0.000	0.206					

RUN 29
PT 11

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
IF 28 30 4C 5E 6E 7D

WKS	RPM	THETA	X2P	XLEL	FPO	ALFS,C	CIT/S	CVR/S
OPSF	V/DR	BAR	VJR	XTEL	PTAT	L/D	CMY/S	CMX/S
MTUN	TIMP	PTC	PTP	XR	PT59L	ANGX/L	CT	CTH
PST	TEMP	TEMPC	TEMP	XP	PT59T	FE	CMFH	CLPH
RHM100	OMEGA	MC	WP	CMUR100	CPS100	CP/S	CPH/S	CPH/S
		CPCR100	CPPR100					
188.8	404.9	-2.1	-0.48	1.53	1.46	-1.0	0.035014	-0.000104
106.1	0.6012	30.04	802.421	1.32	5.04	6.02	-0.000505	-0.001719
0.2762	0.4594	7.28	20.52	0.23	-0.	-0.9	0.00150	0.00115
2018.59	103.0	188.6	178.1	-0.83	4.86	0.21	-0.00020	0.000005
0.0021	530.0	5.55	5.32	0.31976	0.3172	0.005503	0.003347	0.002631
		0.000	0.297					

RUN 29
PT 11

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 2 30 40 50 60 70

WRTS	DDM	THETA	Y2P	YLEL	PPO	PLFS,C	CLL/S	CR4/S	CVF/S
193.5	403.6	-7.1	-0.48	1.53	1.46	0.0	0.060879	-0.001548	0.000333
107.8	0.6023	30.04	807.183	1.32	5.05	6.49	0.001400	0.002364	-0.001400
0.2786	0.4626	7.49	20.49	0.31	-0.	-2.2	0.0509	0.0509	0.0509
2016.87	22.0	196.4	184.0	-0.77	4.72	0.62	0.00214	0.5407	-0.00214
0.0021	578.3	5.87	5.63	0.33593	0.2861	0.005407	0.003647	0.002364	0.00121
		0.000	0.314						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 1F 2F 3D 4C 5F 6F 7D

PTS	VKTS	OPSE	MTUP	PST	HM100	FPM	V/MG	TIPM	TEMP	OMEGA	THETA	X2P	XLEL	FPC	ALFS,C	CLP/S	CY/S	CY/S
PT 17	189.0	104.1	0.2763	2218.54	0.0021	403.7	0.6037	0.4577	104.0	528.4	-2.1	-0.48	1.53	1.58	-1.0	0.03887	-0.00084	0.007840
											30.04	874.213	1.33	6.24	5.67	-0.00110	0.00109	-0.001403
											-1.19	22.10	0.37	-0.	-1.3	0.0399	3.05222	0.00155
											165.6	177.1	-0.84	5.70	0.35	-0.00033	0.00975	0.000039
											0.66	6.38	0.42102	0.3443	0.006975	0.003842	0.003140	0.003350
											0.000	0.426						

DATA IN THE FOLLOWING GROUP OF POINTS SATISFIED THE FOLLOWING SEQUENCE OF CONSTRAINT CODES -
 IF 2K 3D 4C 5E 6F 7E

MIN 23 PT	WTS OPSE MUN PST RH0100	RPM V/OP TIPM TEMP OMEGAR	THETA BAR DTC TEMPC MC CPCPI00	XZP VJR PTP TFMP MP CPRQ100	XLEL XTEL XP XP CMUR100	FPO PRT PT59L PT59T CPS100	ALES,C L/D ANGX/L FF CP/S	CLF/S CMV/S CT CMPH CPN/S	CMF/S CMV/S CTM CPI00 COP/S	CM/S CMV/S CT CMPH CPN/S
188.4		404.2	-2.1	-0.48	1.52	1.41	0.0	0.051201	-0.031746	-0.001074
137.2		0.6010	30.04	887.423	1.32	6.57	7.07	0.000077	0.002712	-0.004314
0.2777		0.4620	10.10	22.53	0.32	-0.	-2.0	0.0512	0.06413	0.03175
2017.52		55.0	158.2	165.9	-0.75	5.94	0.68	0.00127	0.7266	-0.00249
0.0721		529.2	7.51	7.19	0.47265	0.3302	0.007266	0.00-039	0.002712	0.003448
			0.000	0.484						

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1. Pothast, A.: X-Wing Stability and Control Development and Wind Tunnel Demonstration Tests - Helicopter Conversion and Fixed Wing Flight. Paper No. 80-27, Proceedings of the 36th Annual Forum of the American Helicopter Society, May 1980.
2. Chopra, I.; and Ballard, J.: Measurement of Control Stability Characteristics of a Wind-Tunnel Model Using a Transfer Function Method. Presented at AIAA 11th Aerodynamic Testing Conference, Colorado Springs, CO, March 20, 1980.
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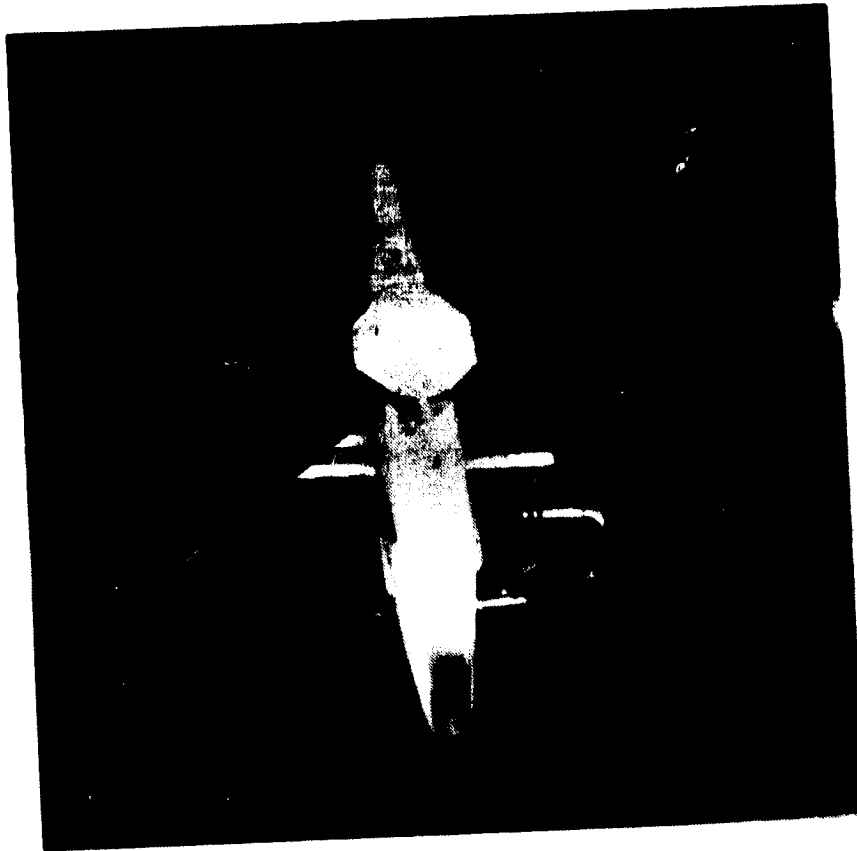


Figure 1.- X-Wing rotor installation in wind tunnel.

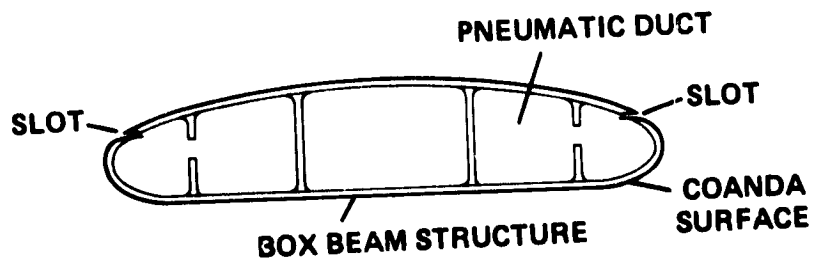


Figure 2.- X-Wing blade cross section.

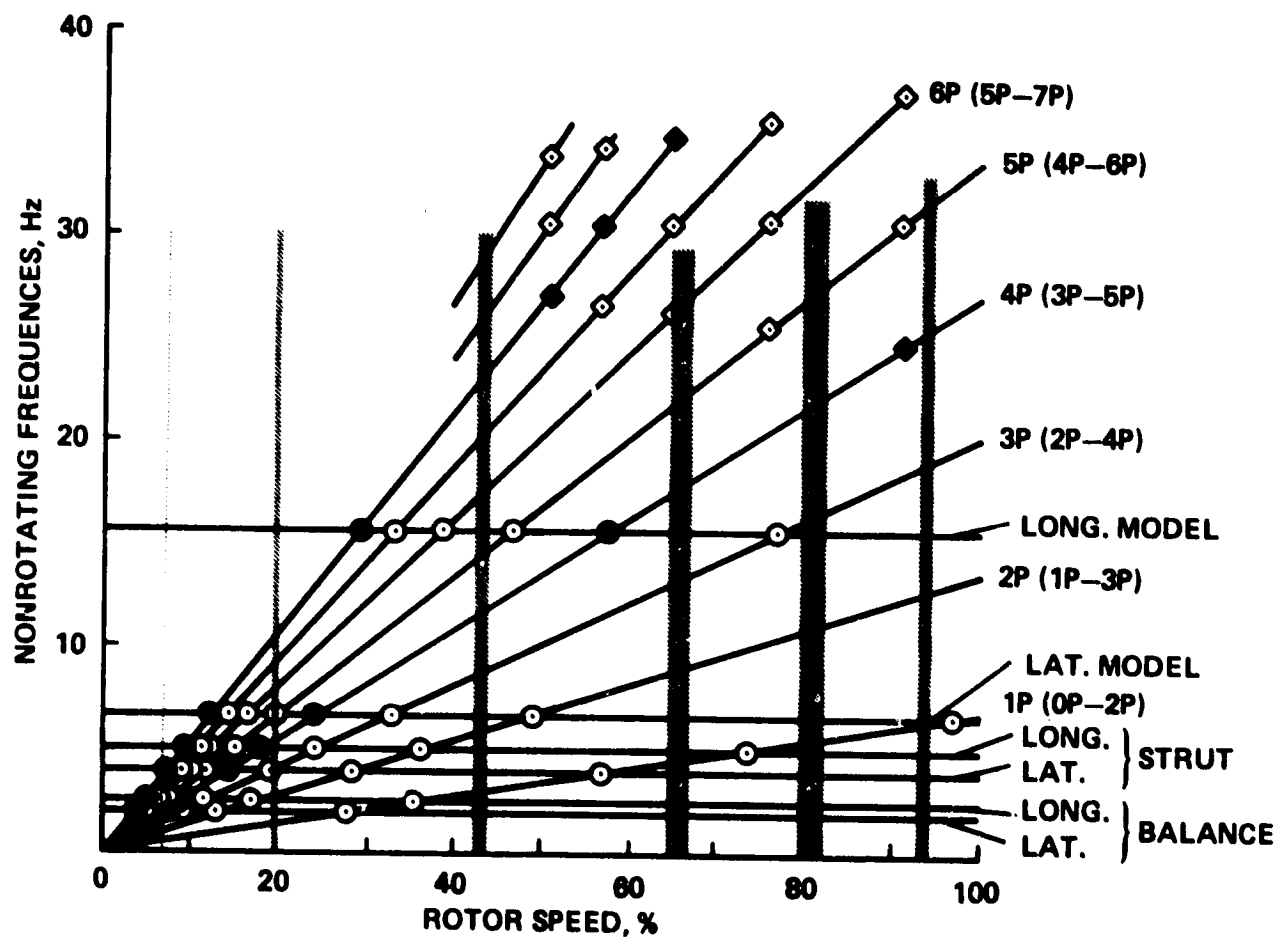


Figure 3.- Rotor blade/hub bending frequencies.

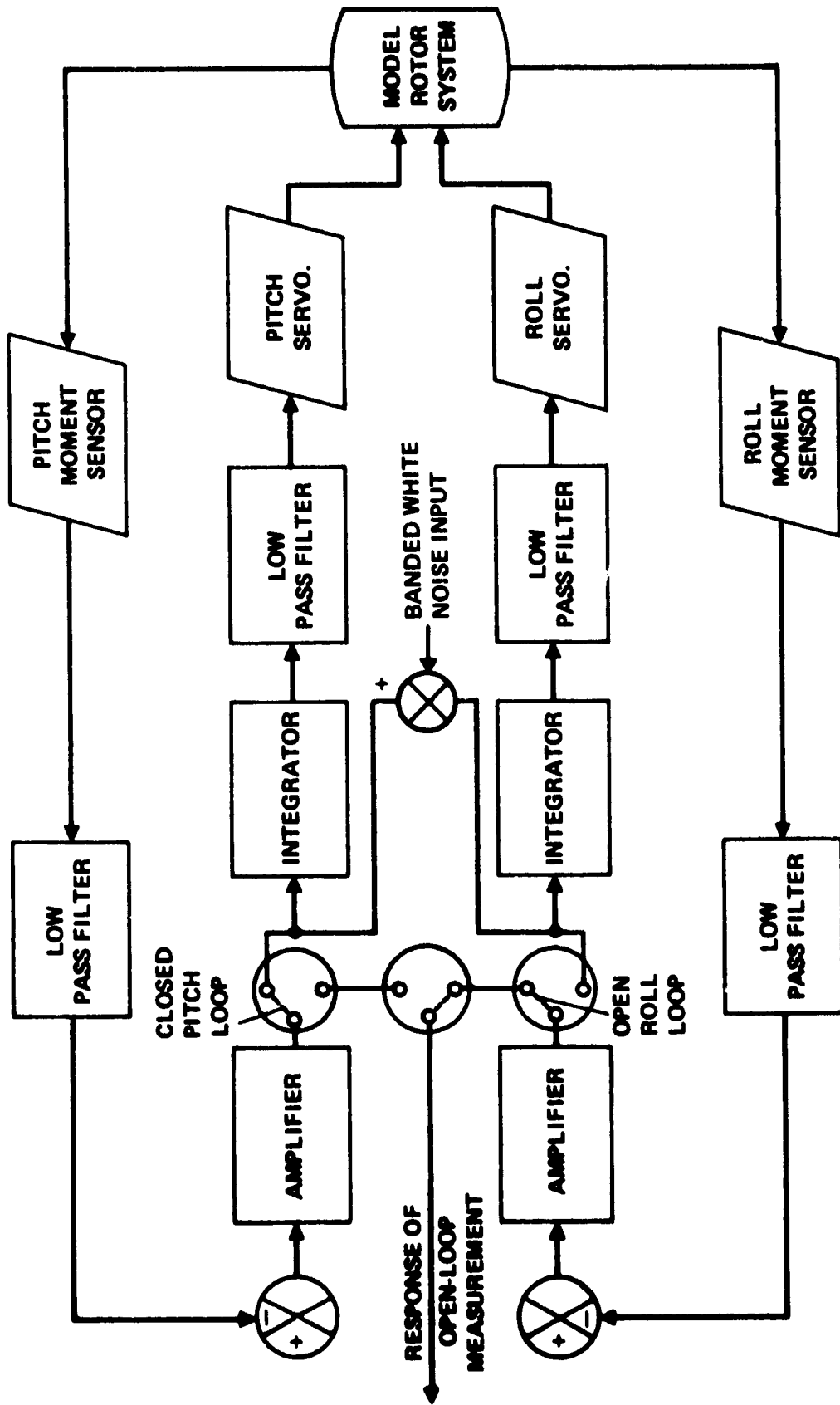


Figure 4.- Simplified block diagram of the rotor model with hub-moment feedback control system during open-loop testing.

X-WING 40X80 MT 180K CONV MODE START ALF=2 TH0=-4 PP=5 X2P=-

TEST 539 RUN 42 POINT 3

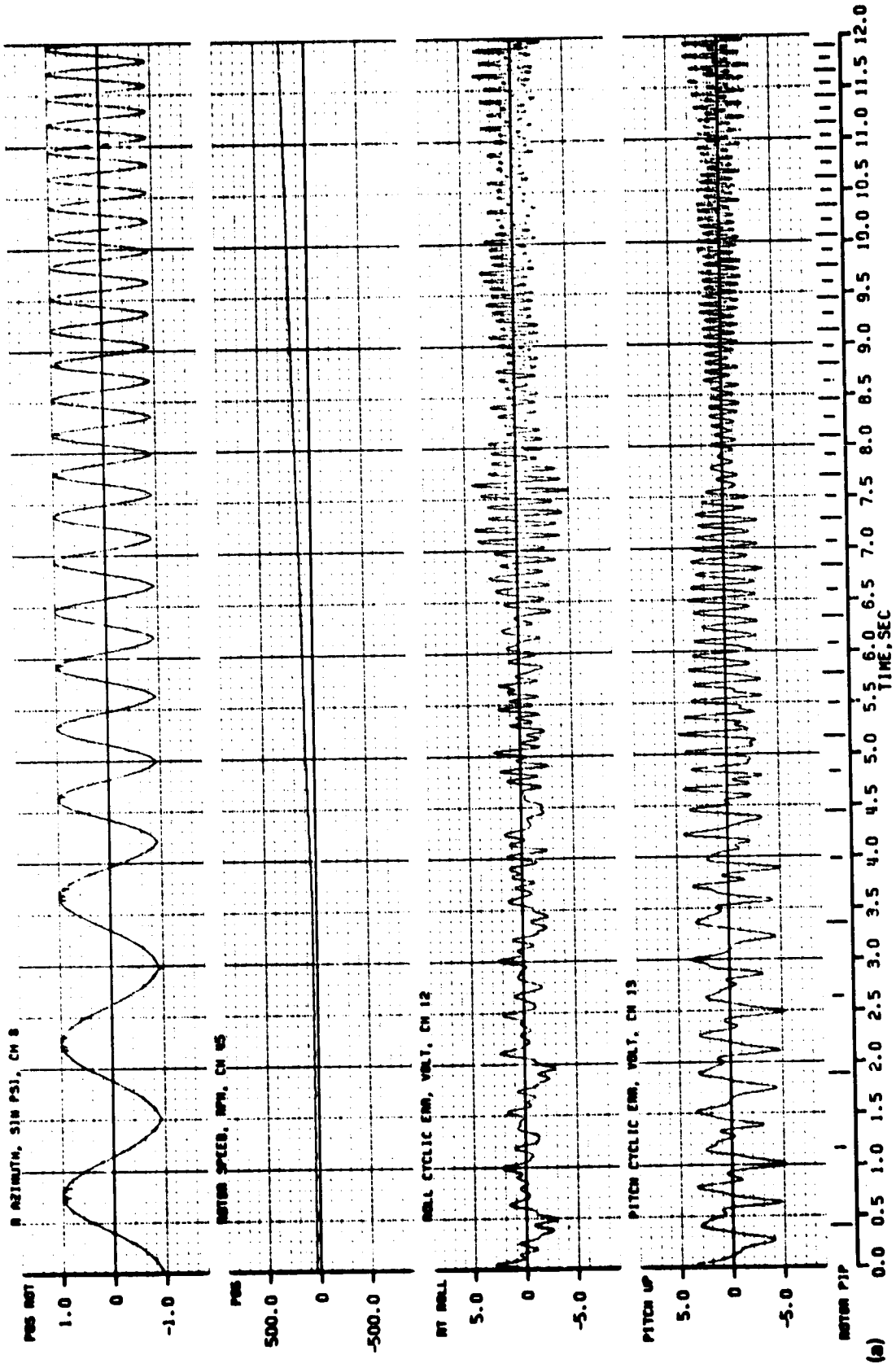
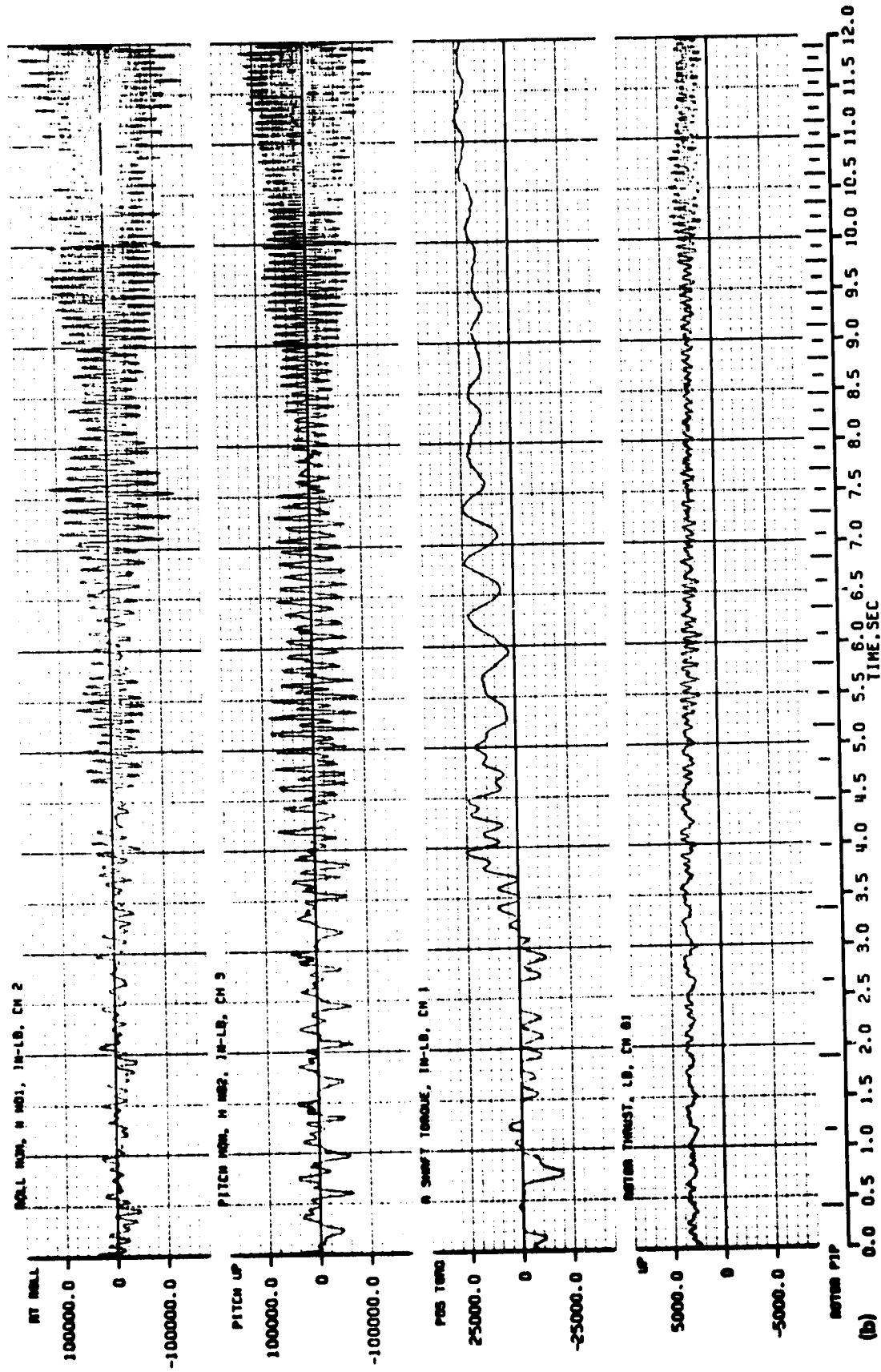


Figure 5.- Time history of run 42, data point 3, rotor transient from fixed-wing to rotary-wing mode.

X-WING 40180 WT 180K CONV MODE START ALF-2 THD=-4 PF=5 X2P=-
 TEST 539 RUN 42 POINT 3



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Figure 5.- Continued.

X-BING 40X80 WT 160K CONV MODE START ALF-2 THD--4 PP-5 X2P--

TEST 539 RUN 42 POINT 3

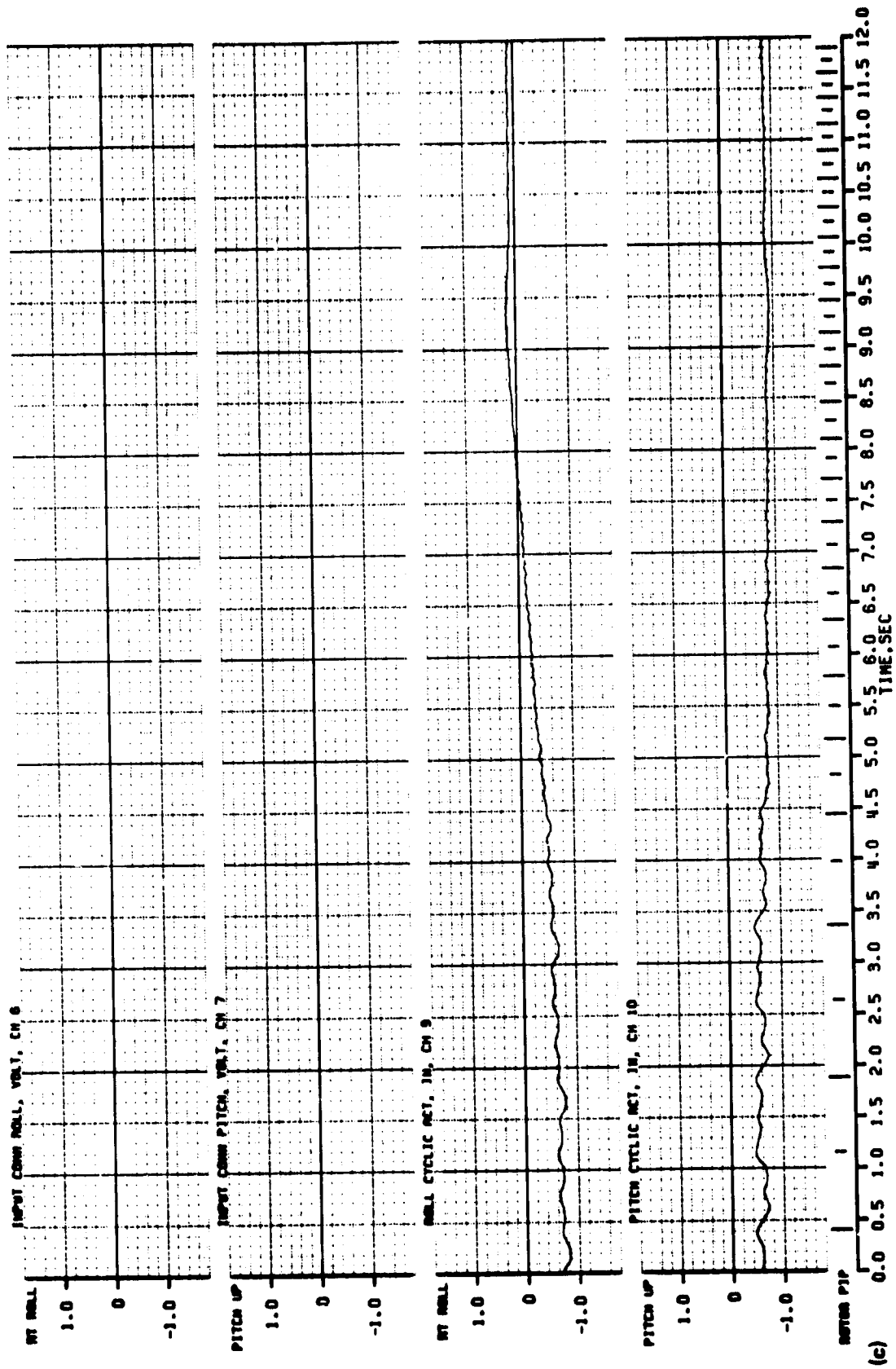
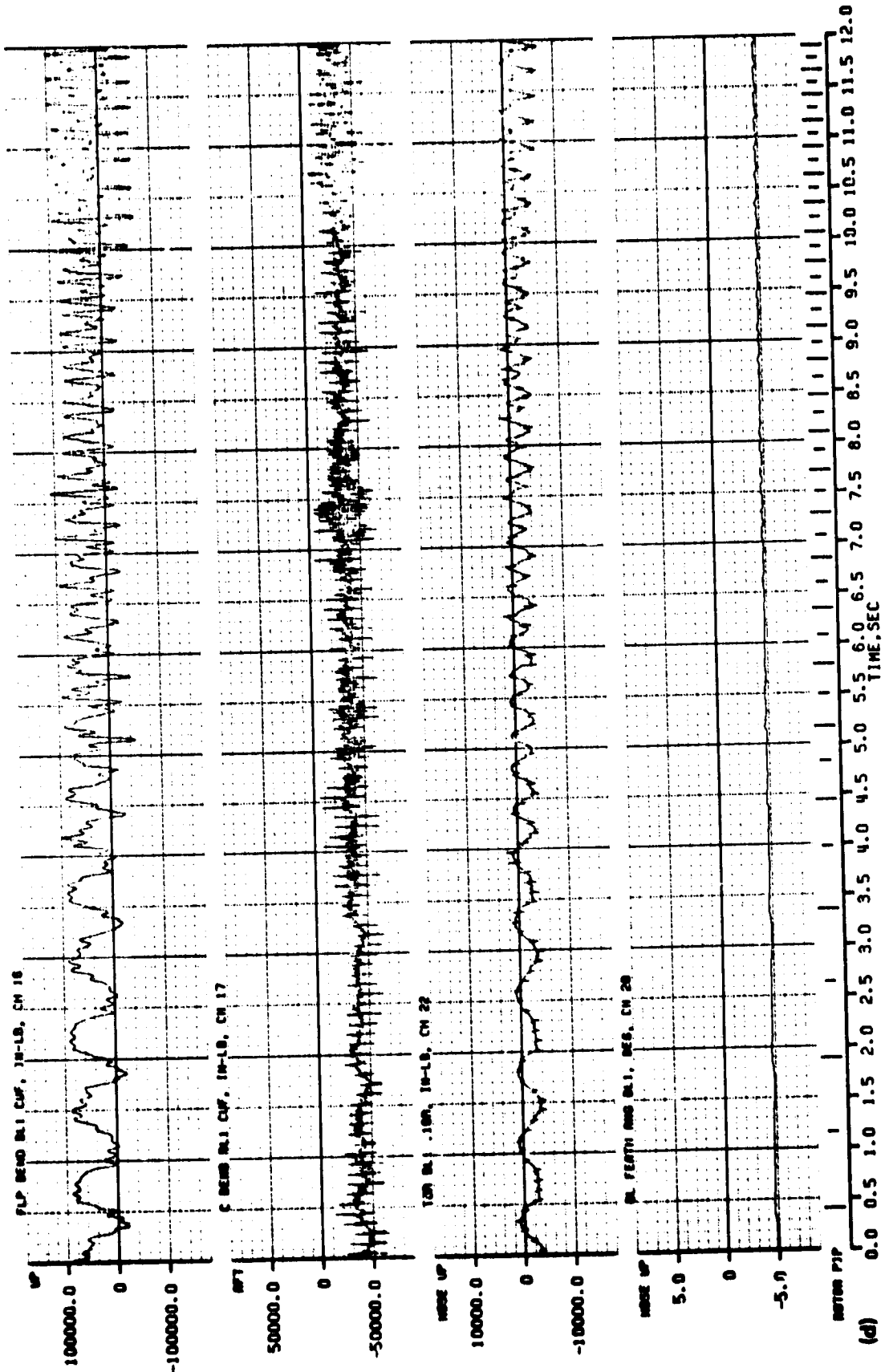


Figure 5.- Continued.

X-RING 40X80 MT 180K CONV MODE START ALF=2 THD=-4 PP=5 X2P=-

TEST 539 RUN 42 POINT 3

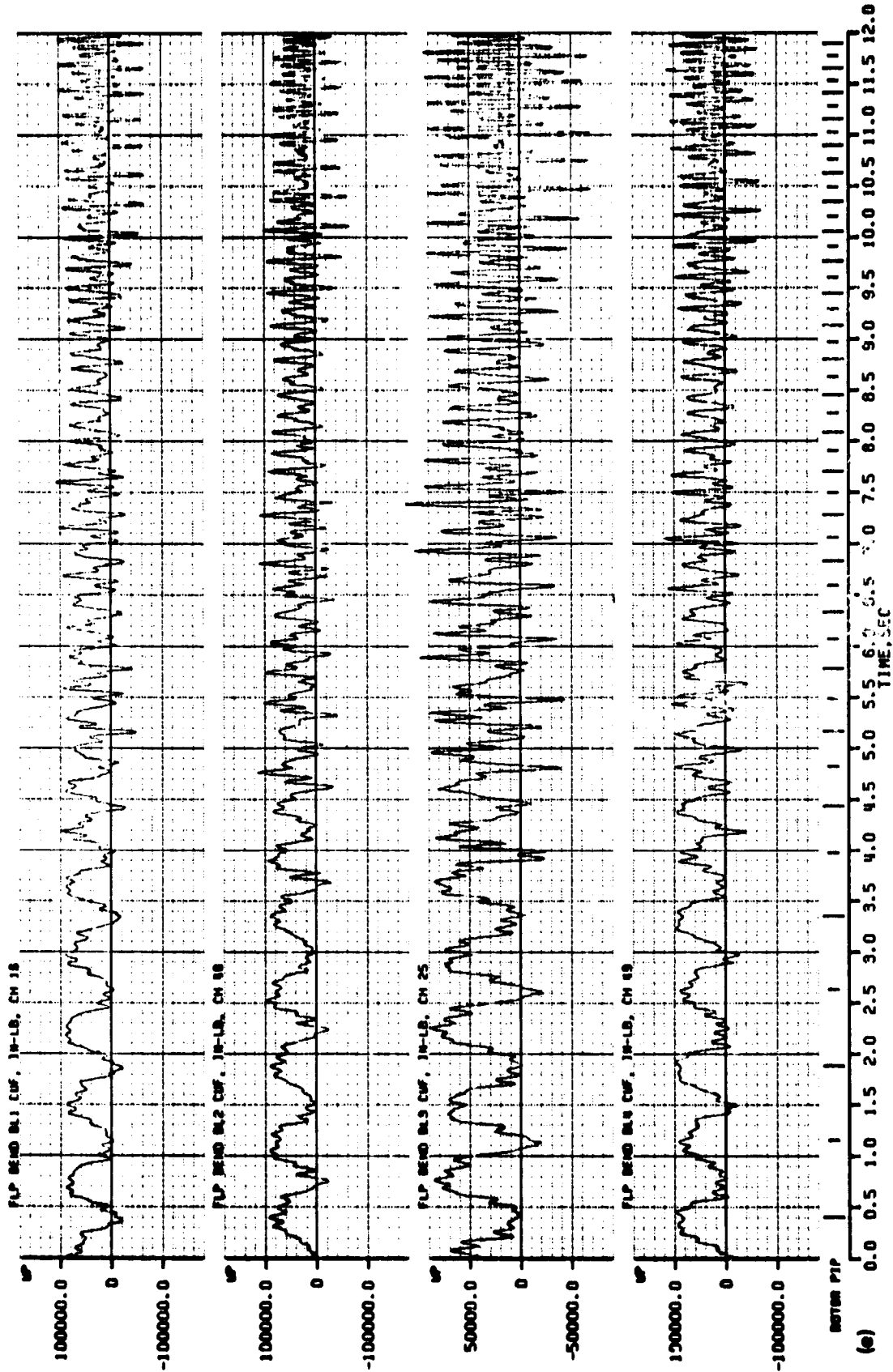


P-4-88
148

Figure 5.- Continued.

X-RING NOX80 MT 180K CONV MODE START ALF-2 TH0--4 PP=5 X2P--

TEST 539 RUN 42 POINT 3



8-81-88

Figure 5.- Continued.

X-WING 40X80 NT 160K CONV MODE START ALF=2 TH0=-4 PP=5 X2P=-

TEST 539 RUN 42 POINT 3

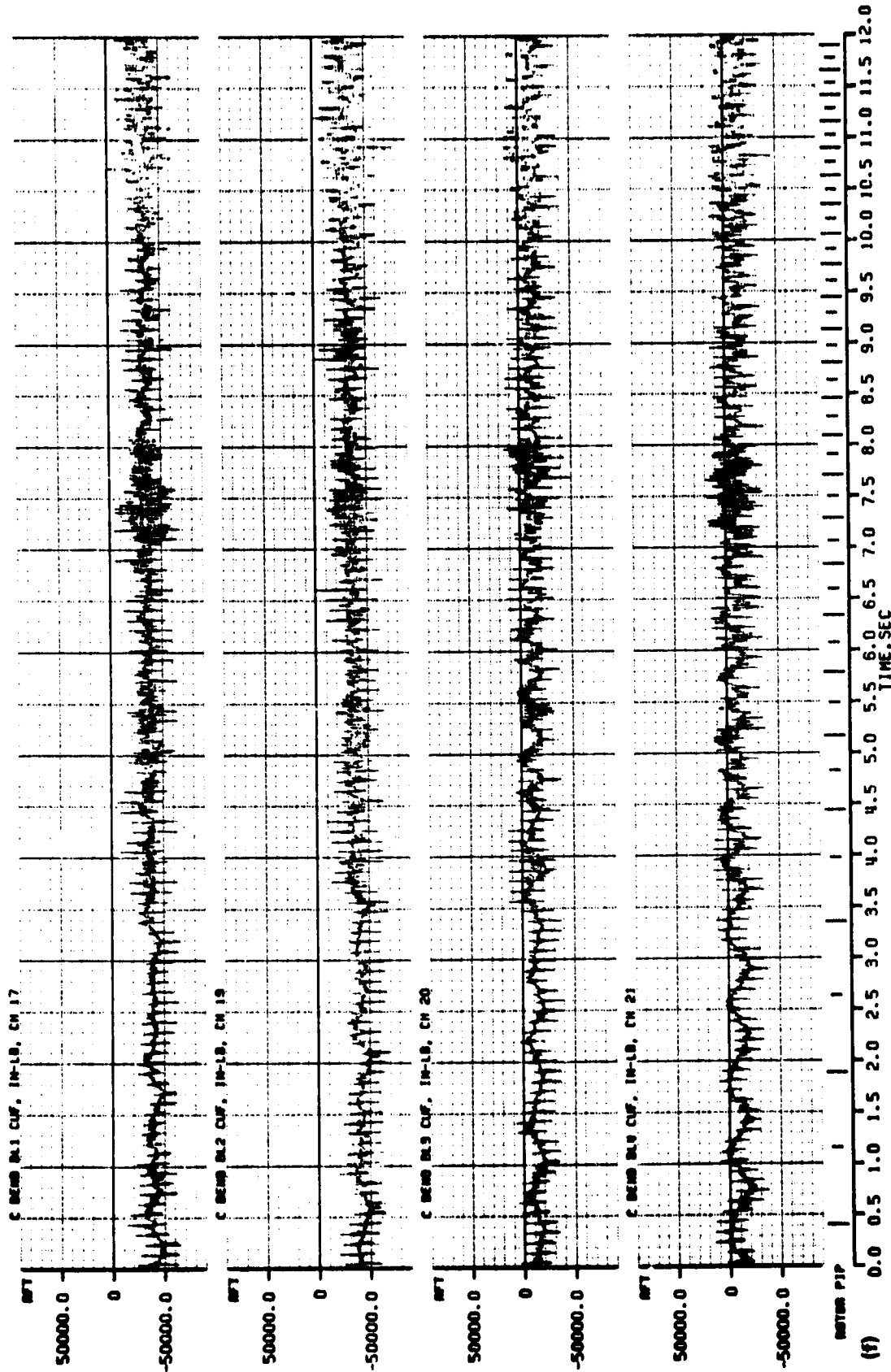


Figure 5.- Continued.

X-WING 40X80 WT 180K CONV MODE START ALF=2 TH0=-4 PP=5 X2P--

TEST 539 RUN 42 POINT 3

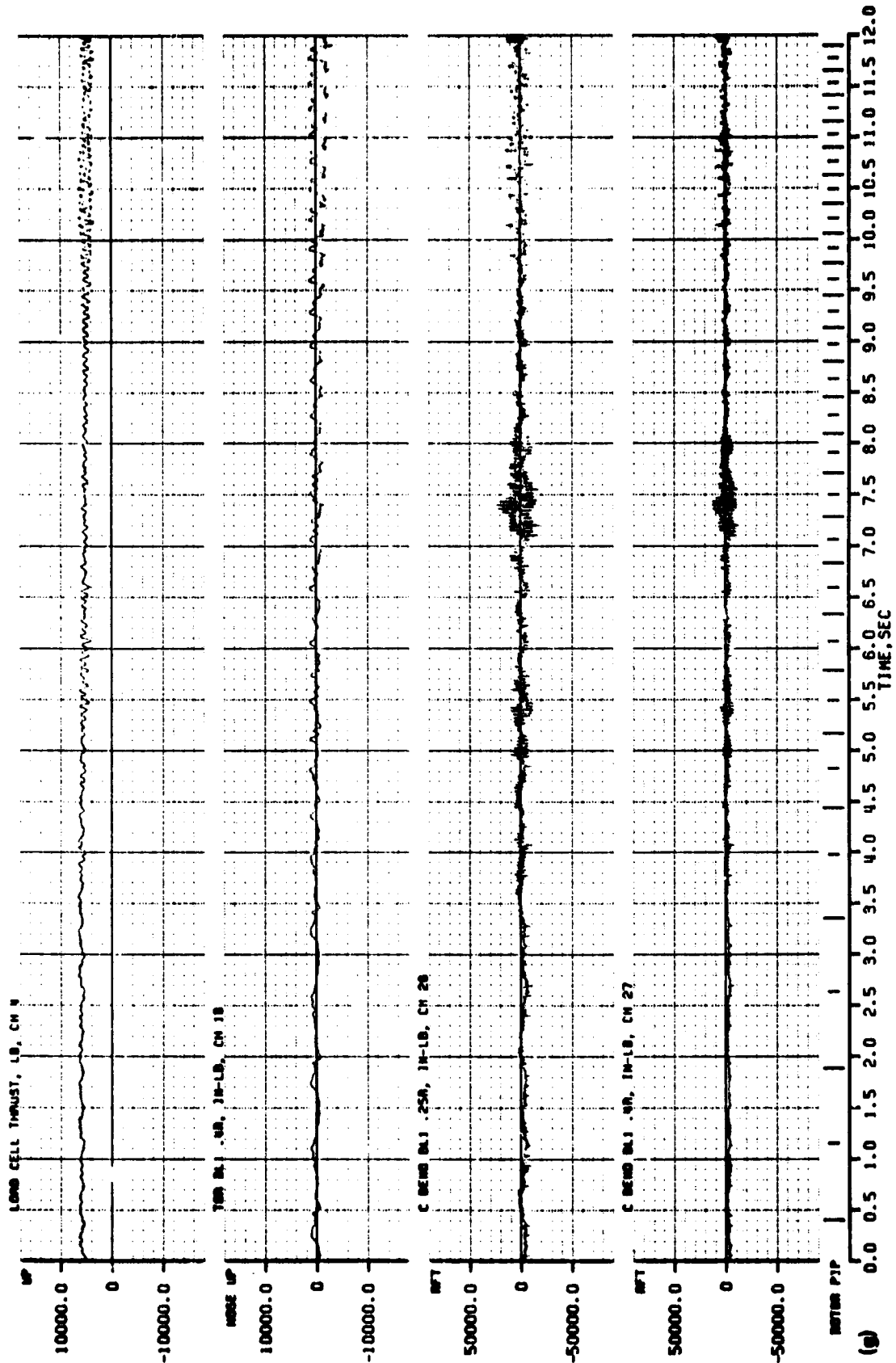


Figure 5.- Continued.

X-NING 40180 WT 180K CONV MODE START ALF=2 TH0=-4 PP=5 X2P=-
 TEST 539 RUN 42 POINT 3

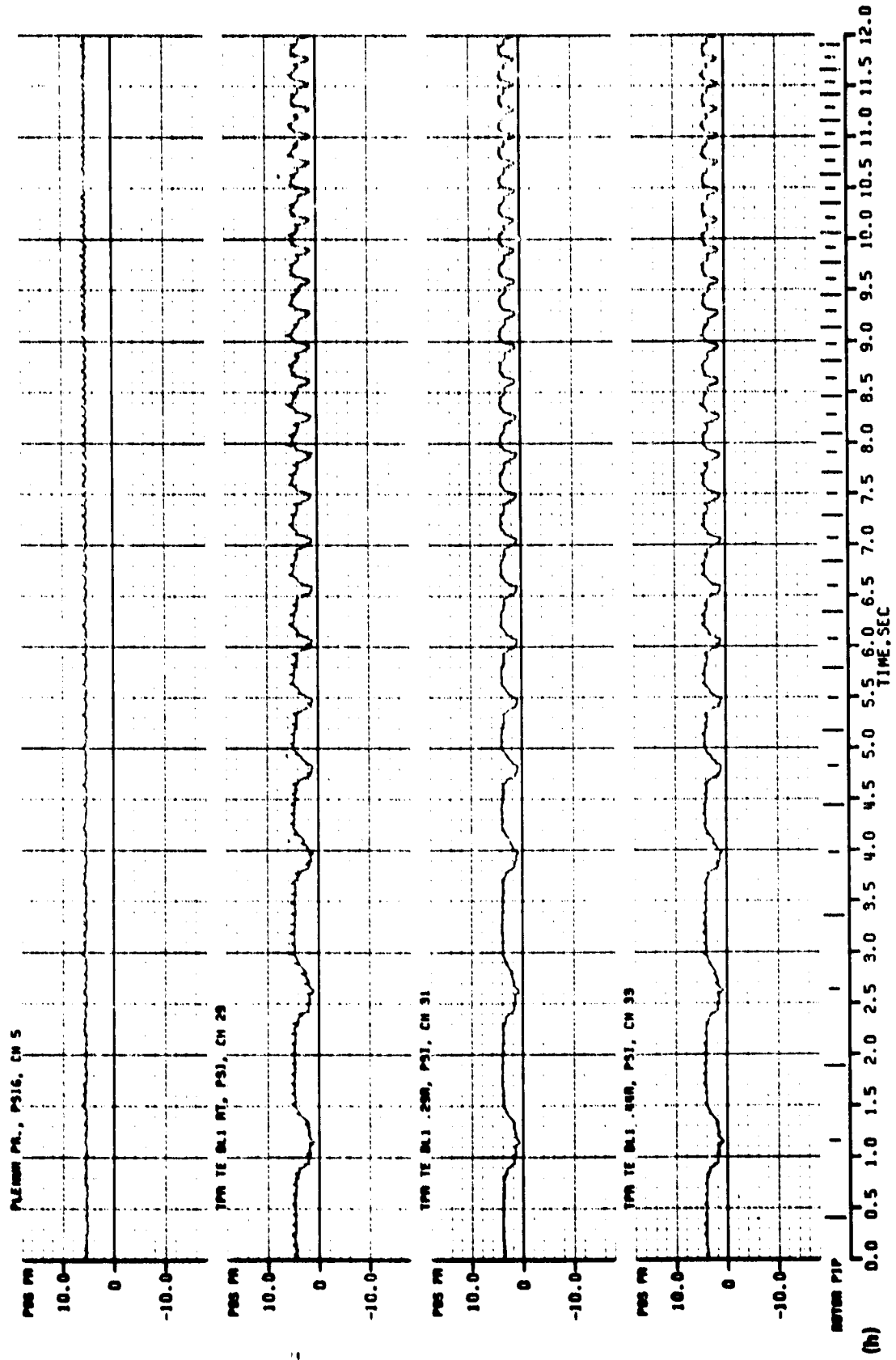


Figure 5.- Continued.

X-MING WDX80 MT 180K CONV MODE START ALF=2 THD=-1 PP=5 X2P=-
 TEST 539 RUN W2 POINT 3

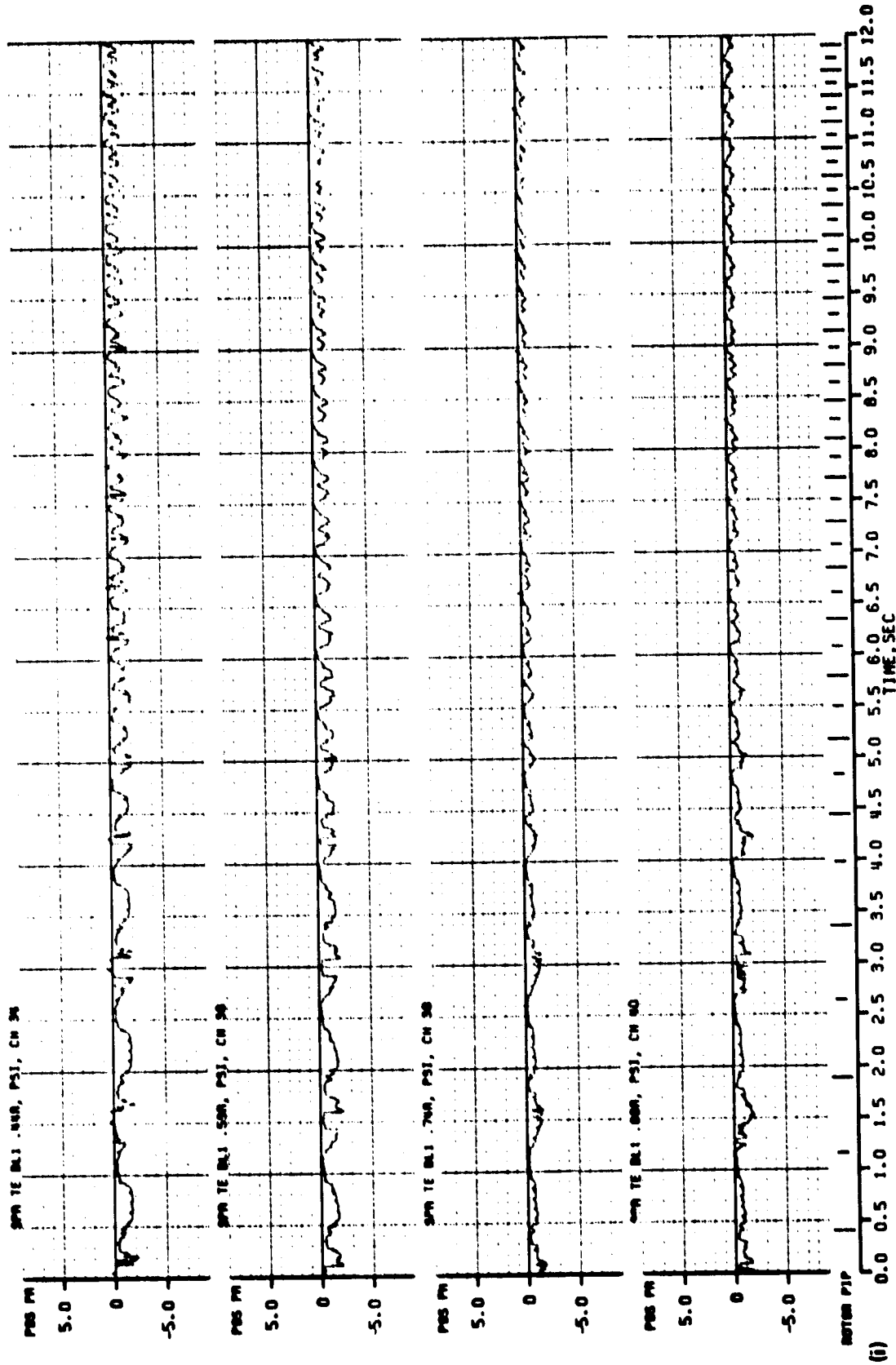
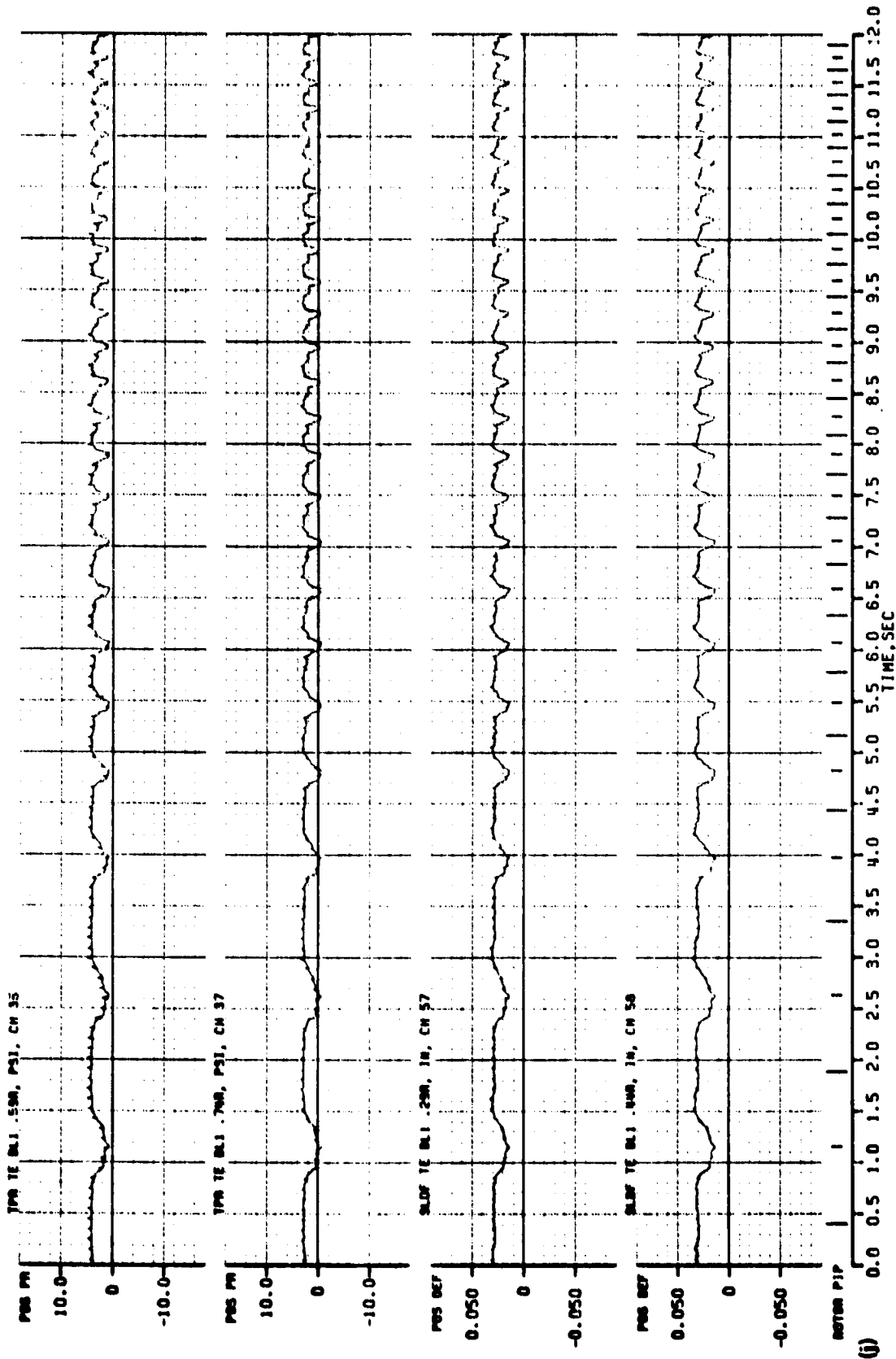


Figure 5.- Continued.

X-MING 40160 MT 180K CONV MODE START ALF=2 THD=4 PP=5 X2P=-

TEST 539 RUN 42 POINT 3



(j) 0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5 12.0

Figure 5.- Continued.

X-WING 40X80 WT 180K CONV MODE START ALF=2 TH0=-4 PP=5 X2P=-
 TEST 539 RUN 42 POINT 3

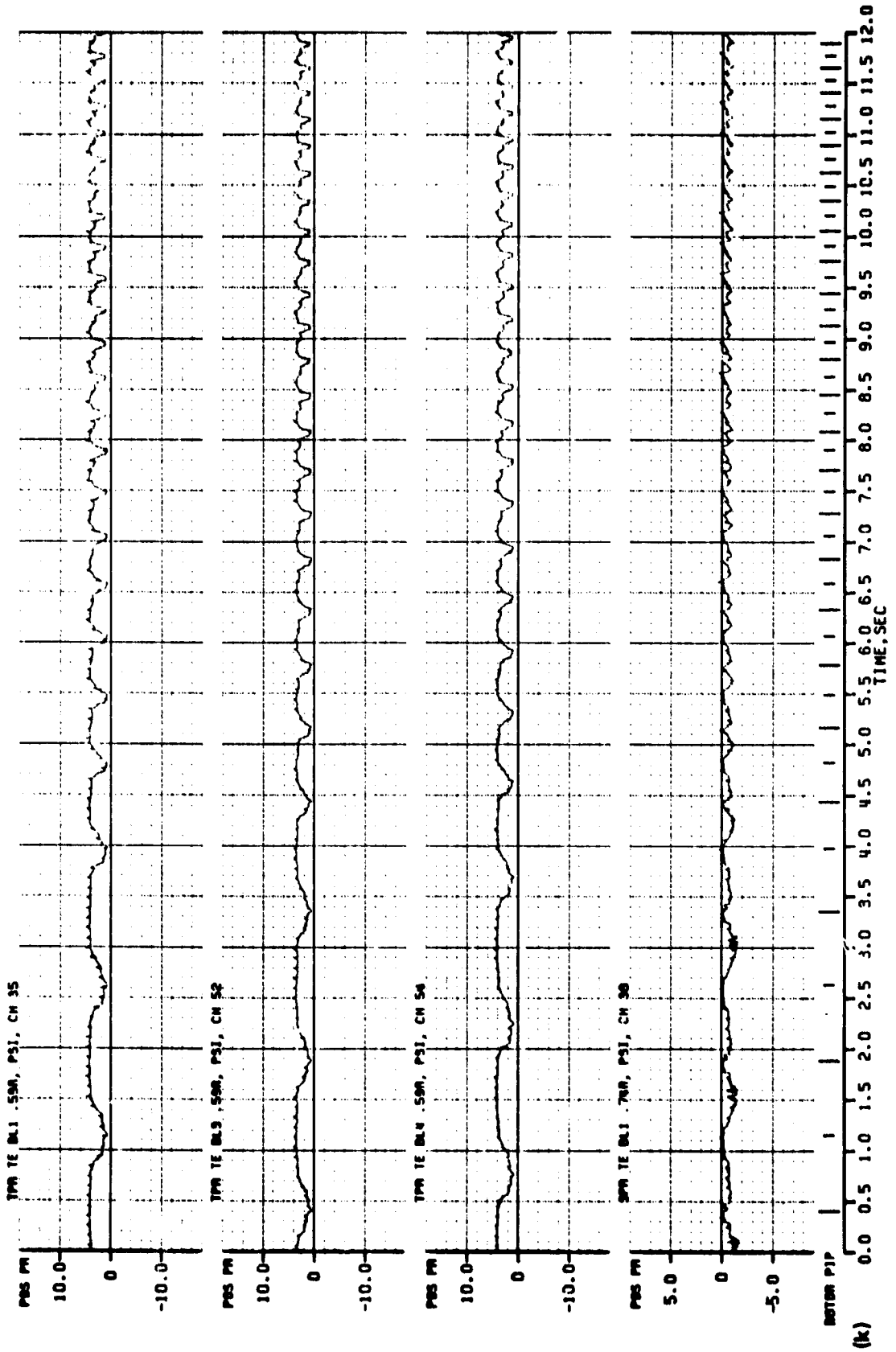


Figure 5.- Continued.

X-MING 40X80 MT 180K CONV MODE START ALF=2 TH0=-4 PP=5 X2P=-

TEST 539 RUN #2 POINT 3

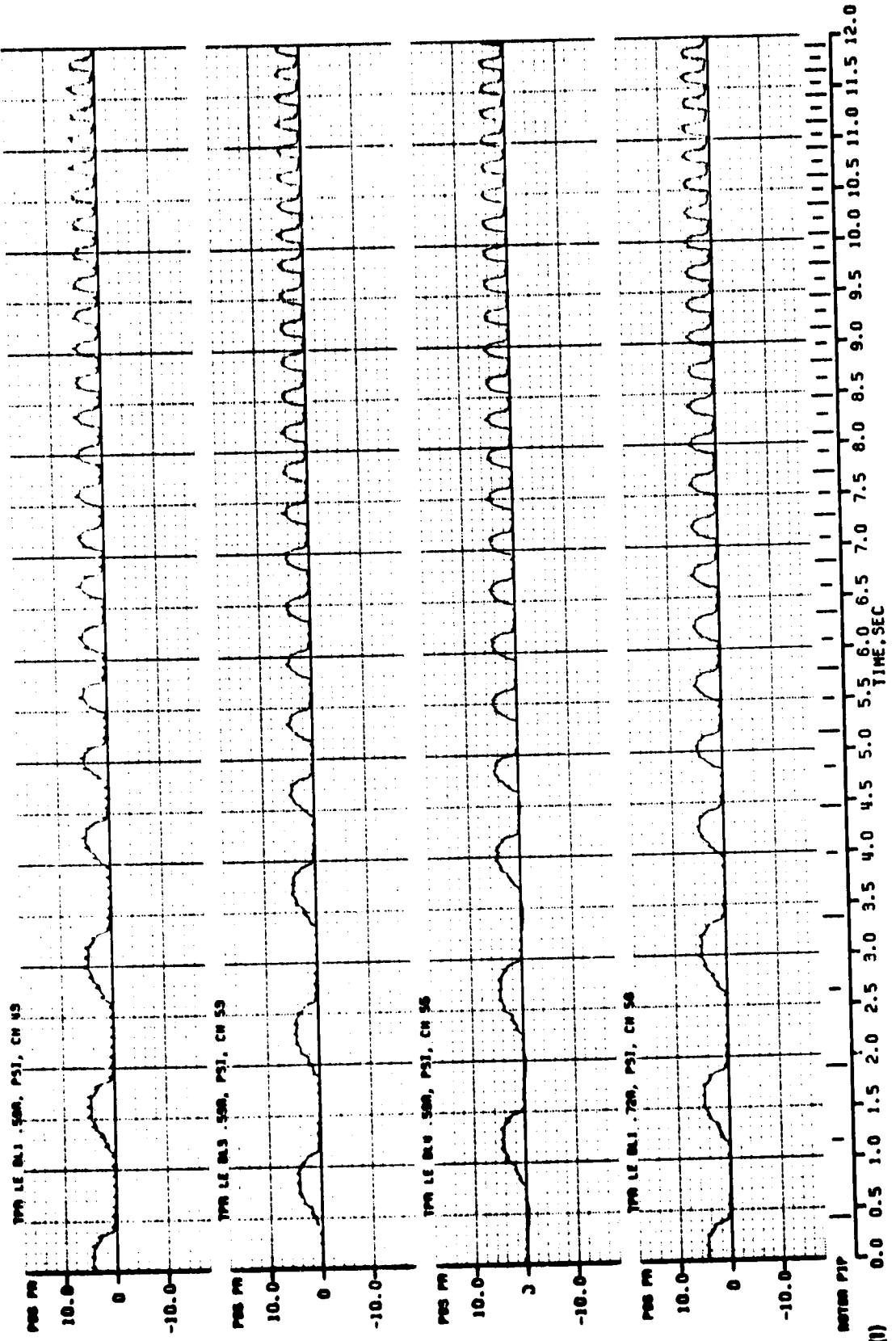
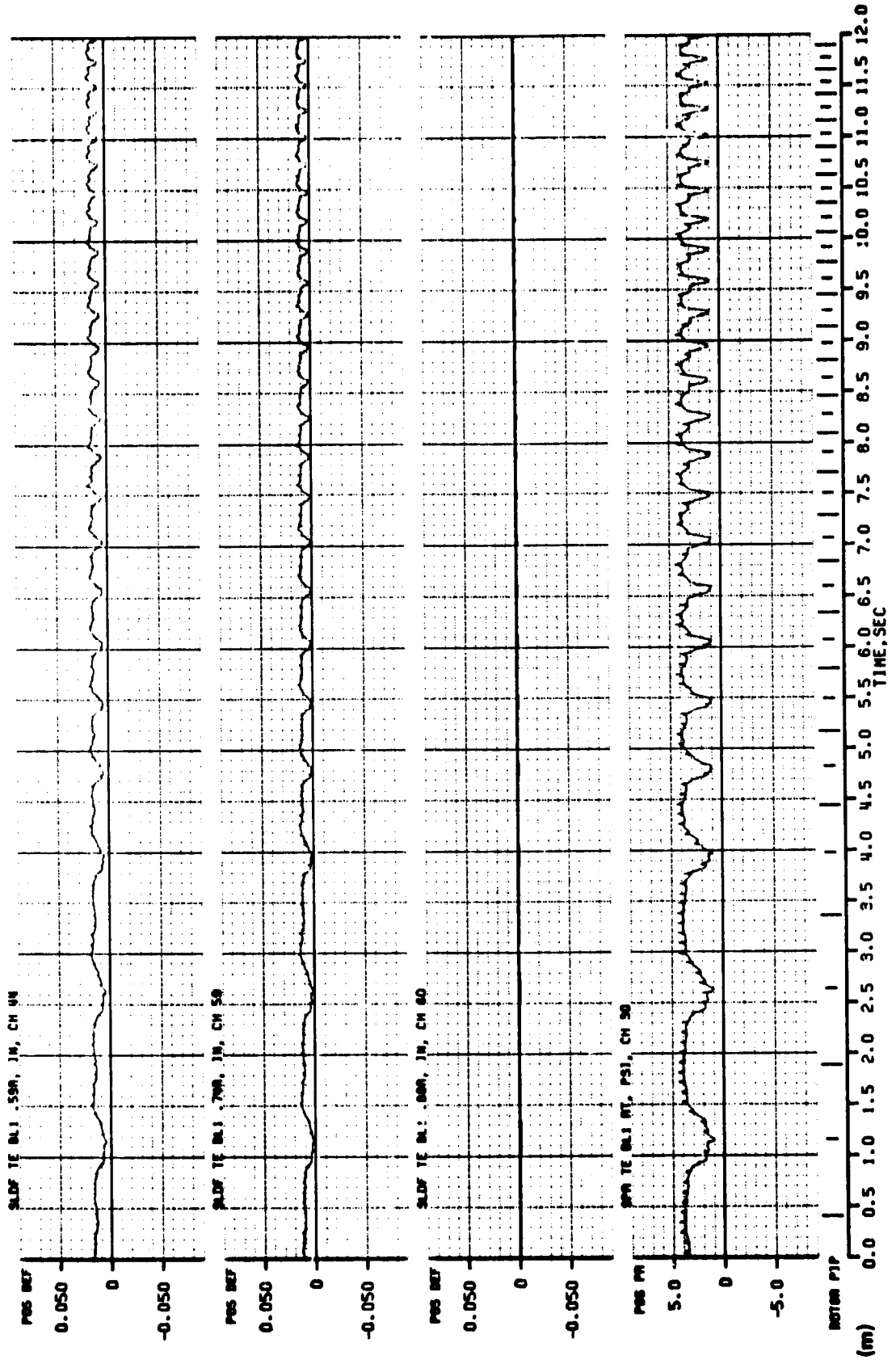


Figure 5.- Continued.

X-NING 40X80 WT 180K CONV MODE START ALF=2 THD=-4 PP=5 X2P=-
 TEST 539 RUN 42 POINT 3



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Figure 5.- Concluded.

X-WING 40X80 MT 180K CONV MODE STOP ALF=2 TMO=4 PP=6 X2P=-1
 TEST 539 RUN 42 POINT 4

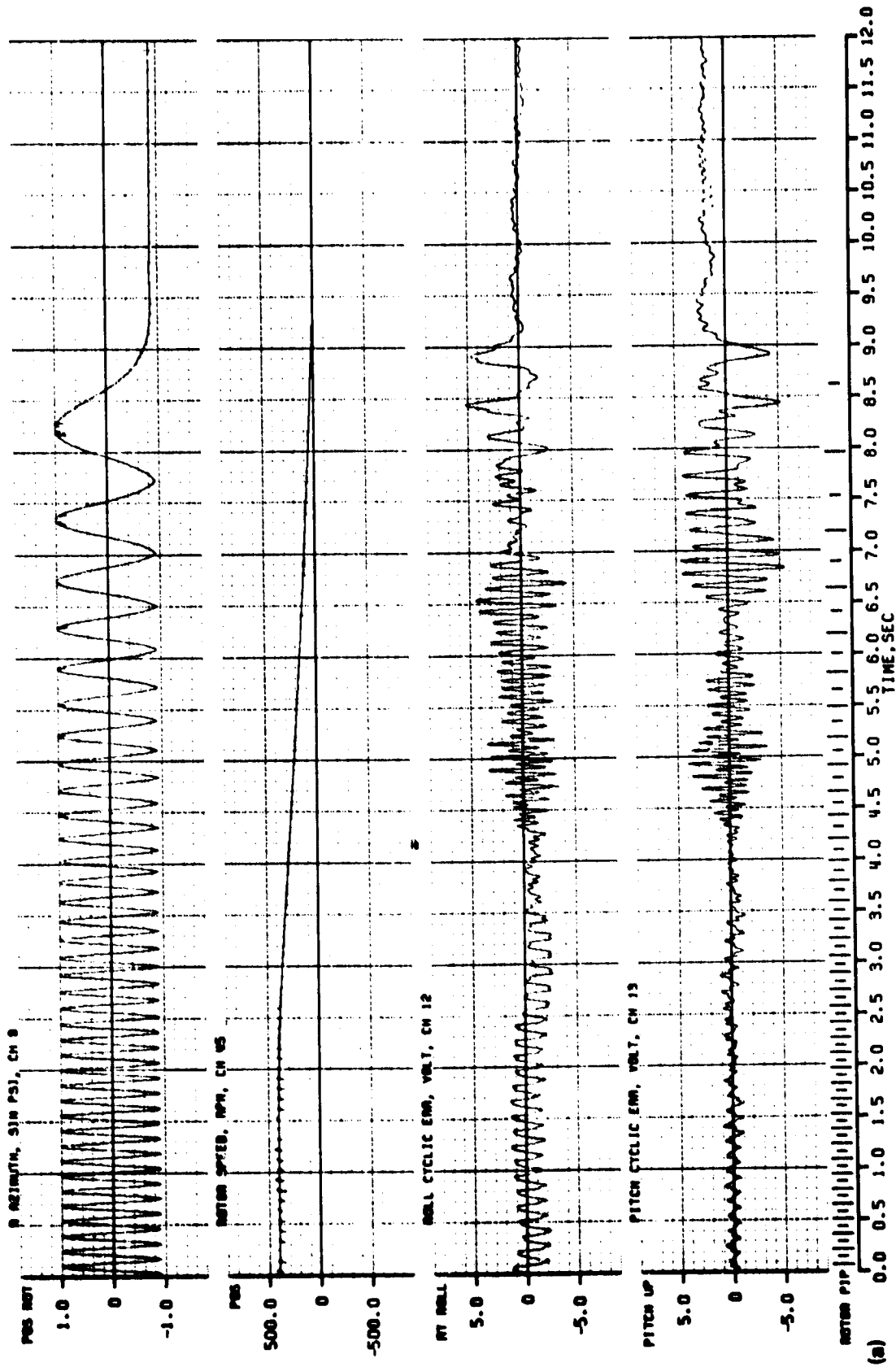
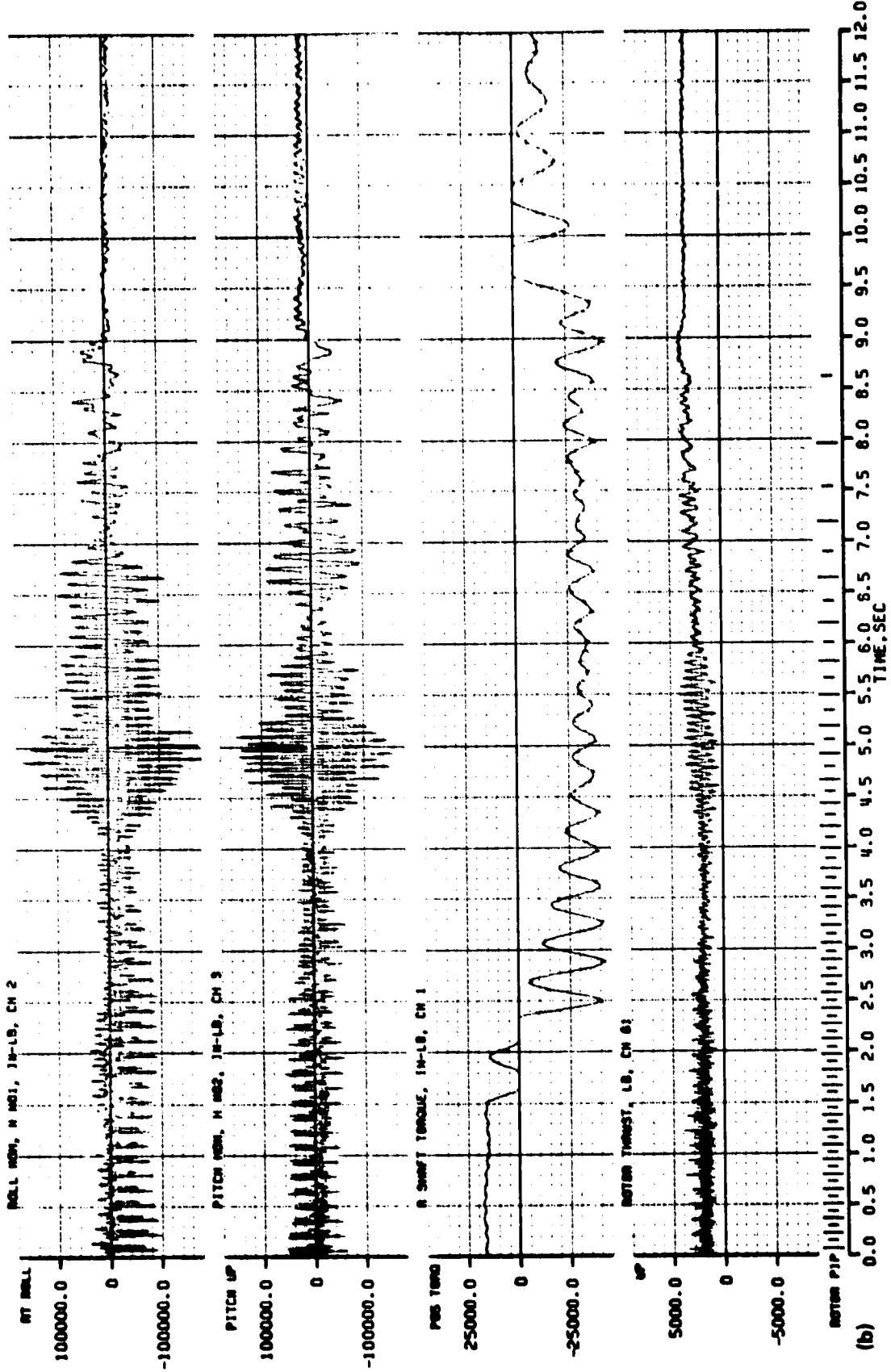


Figure 6.- Time history of run 42, data point 4, rotor transient from rotary-wing to fixed-wing mode.

X-WING 40180 WT 180K CONV MODE STOP ALF=2 TH0=-4 PP=6 X2P=-1

TEST 539 RUN 42 POINT 4



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Figure 6.- Continued.

X-BING 60X80 MT 160K CONV MODE STOP ALF-2 TH0--4 PP-6 X2P--1

TEST 530 RUN N2 POINT 4

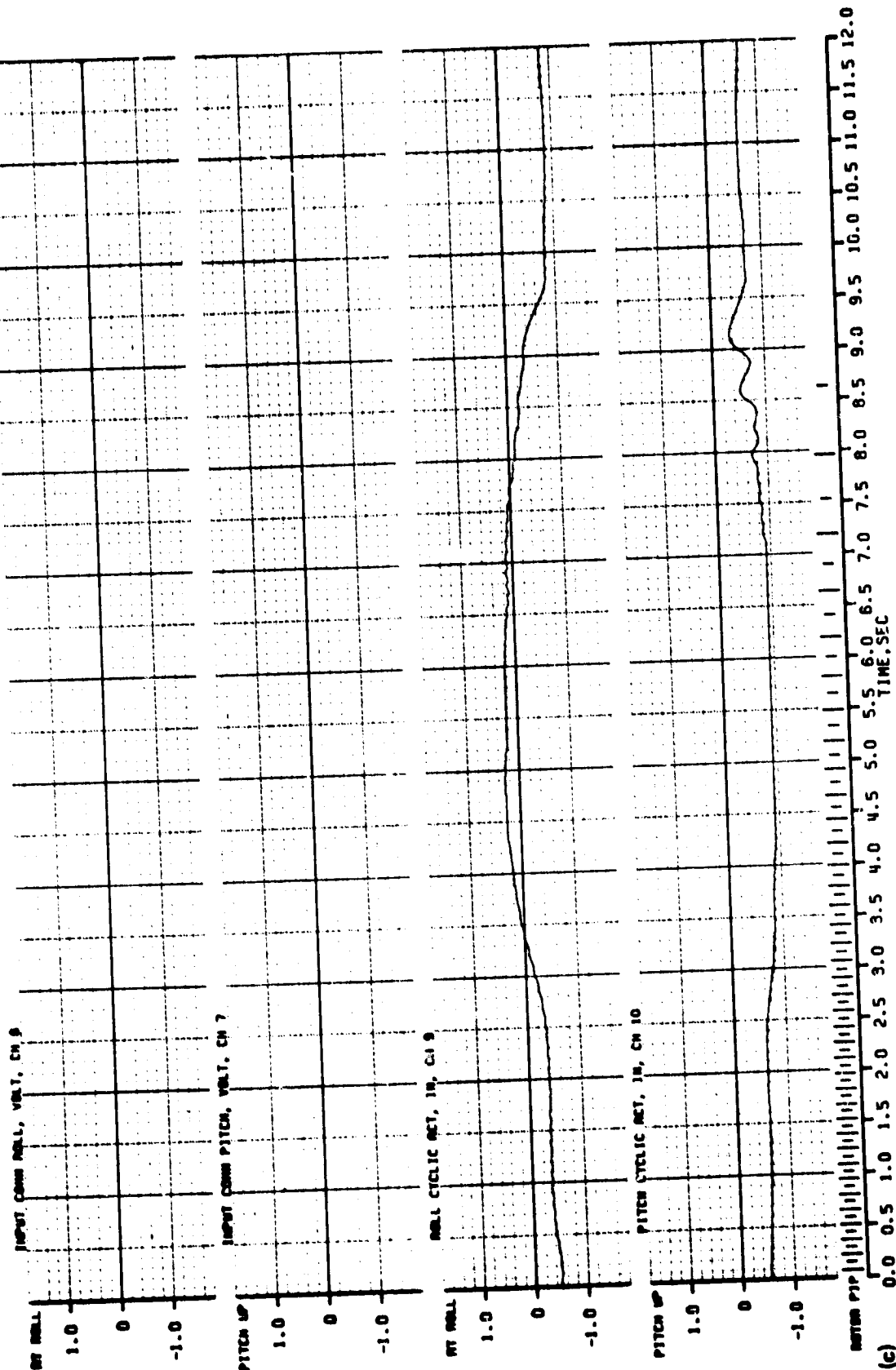
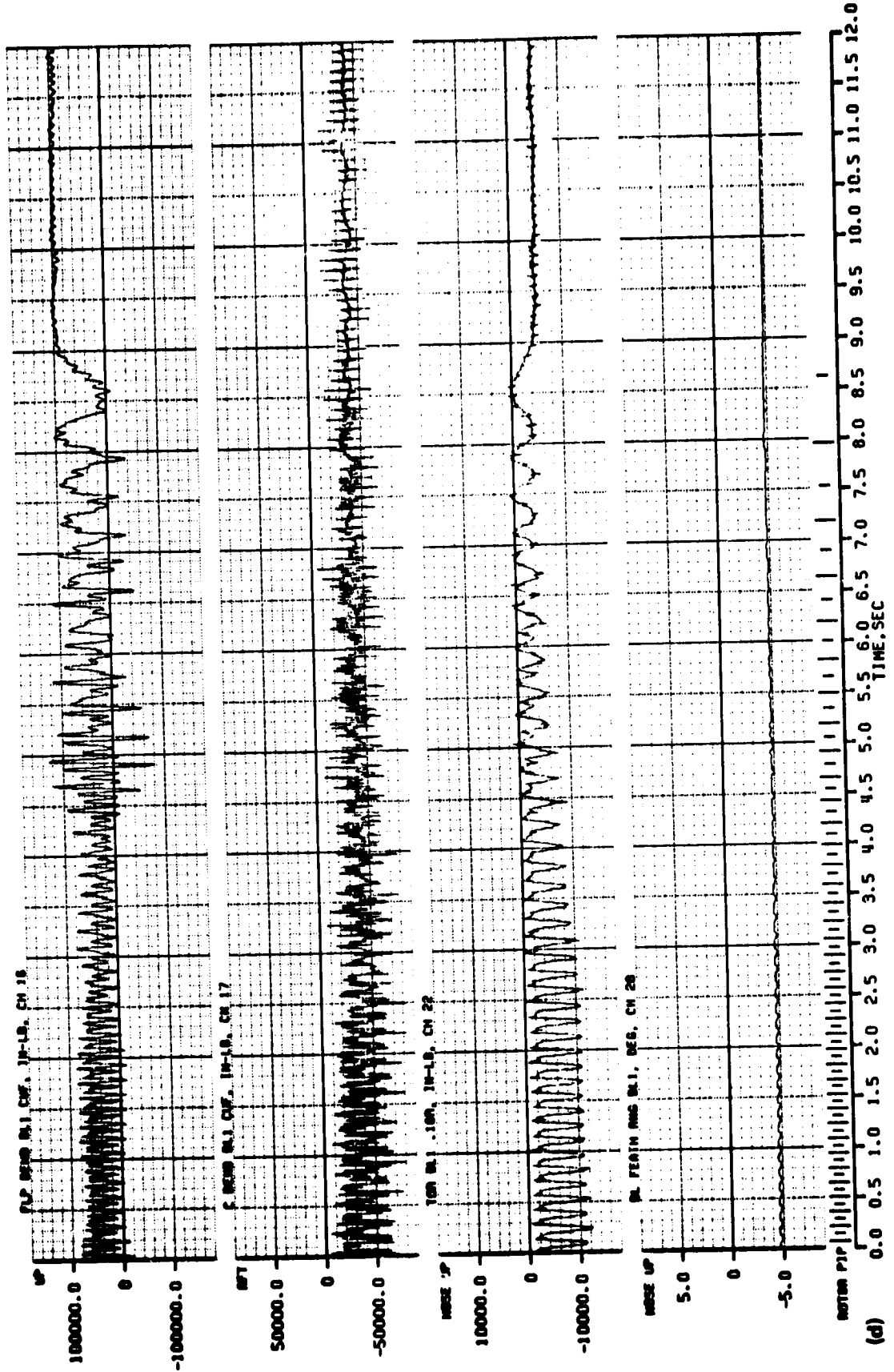


Figure 6.- Continued.

X-MING 40X60 WT 180K CONV MODE STOP RLF=2 TH0=-4 PP=6 X2P=-1

TEST 538 RUN 42 POINT 4



(d)

Figure 6.- Continued.

X-MING 40180 NT 180X CONV MODE STOP ALF=2 THD=-4 PP=6 X2P=-1

TEST 538 RUN 42 POINT 4

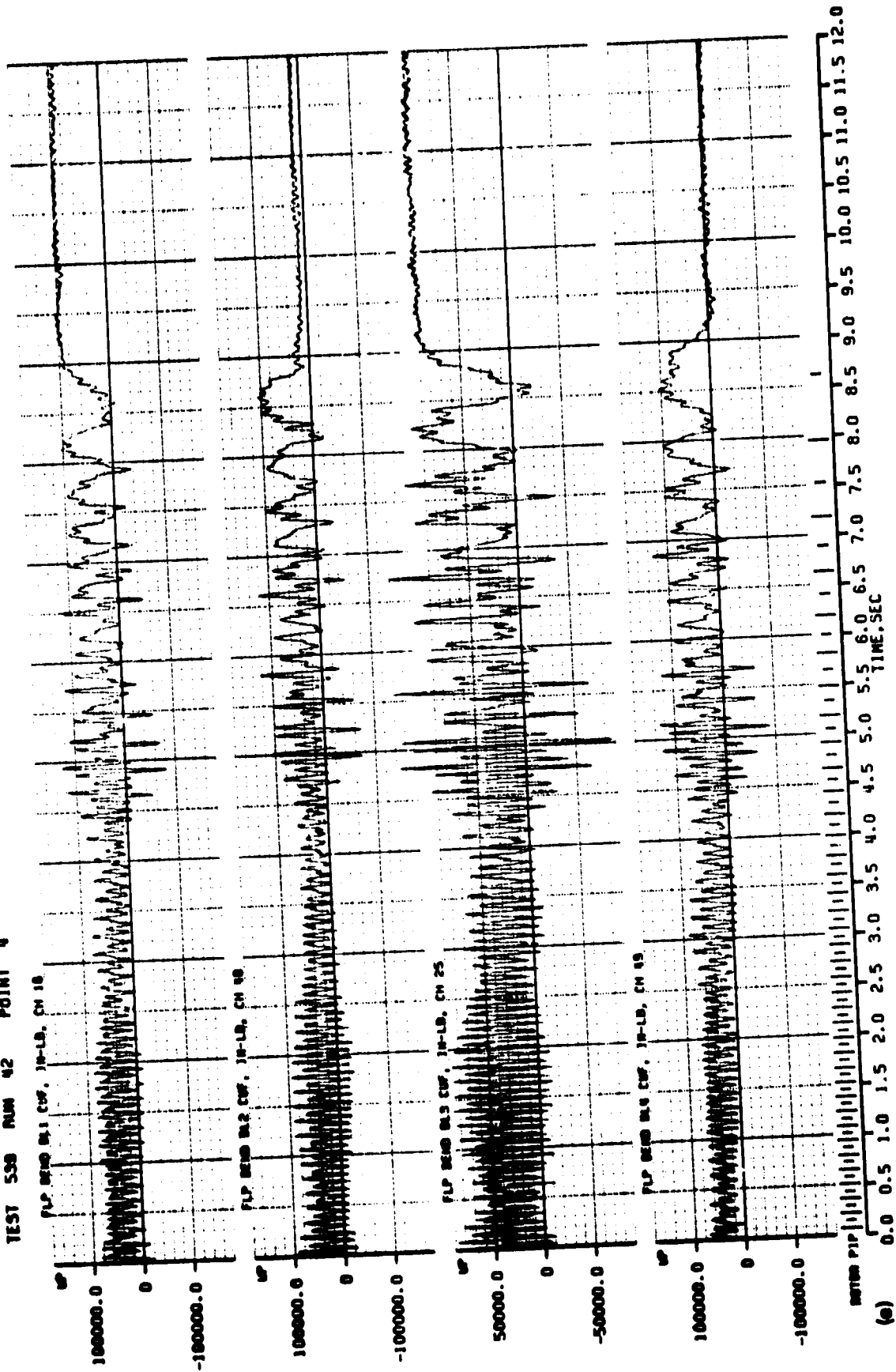
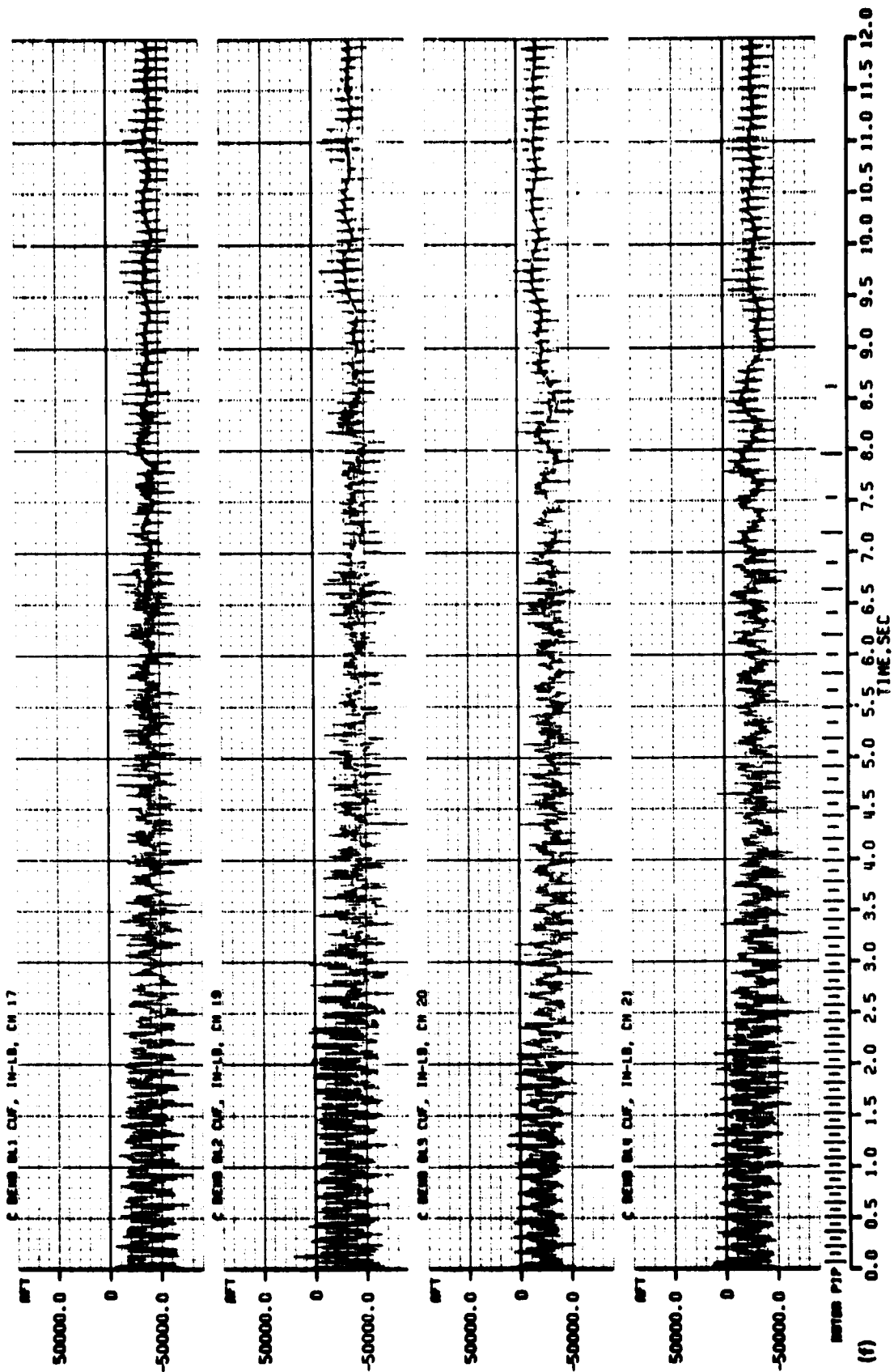


Figure 6.- Continued.

X-WING 40X60 WT 180K CONV MODE STOP ALF=2 TH0=-4 PP=6 X2P=-1

TEST 539 RUN N2 POINT N



P 4 2 2 8

Figure 6.- Continued.

X-MING W0200 MT 100K CONV MODE STOP ALF=2 TMO=-4 PP=6 X2P=-1

TEST 539 RUN N2 POINT 4

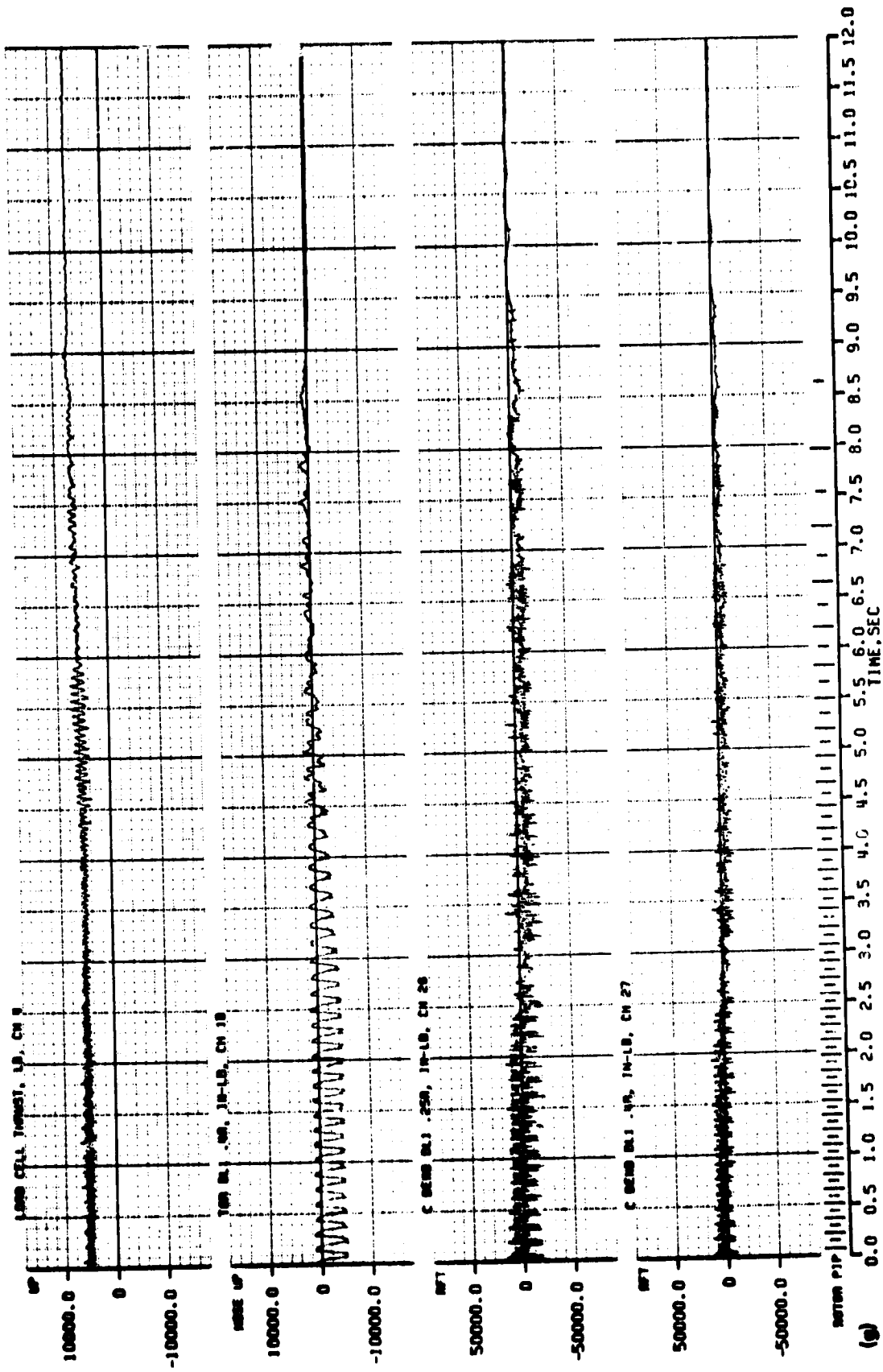


Figure 6.- Continued.

X-WING 40X80 MT 180K CONV MODE STOP ALF=2 TH0=-4 PP=6 X2P=-1

TEST 539 RUN 42 POINT 4

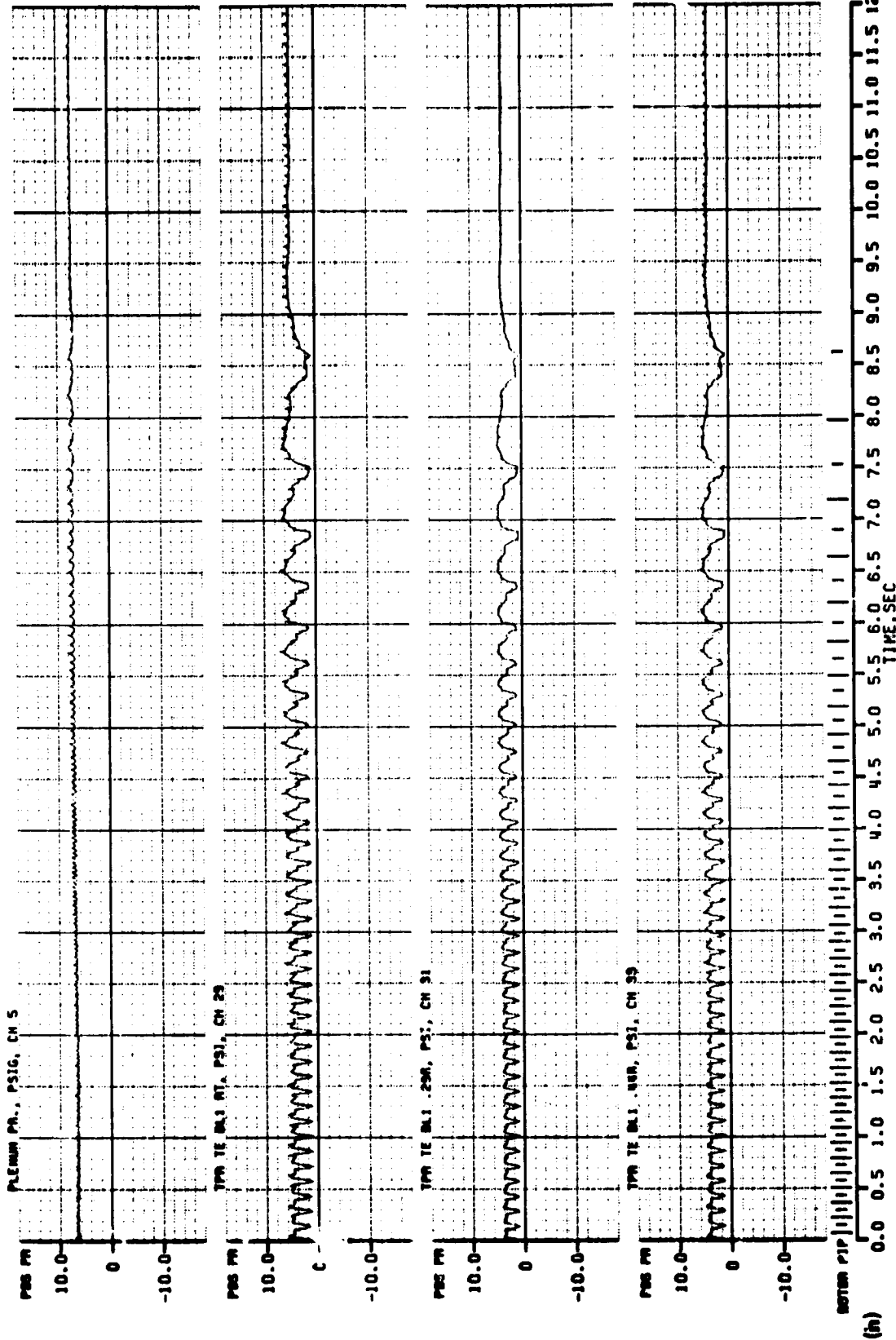


Figure 6.- Continued.

X-MING 40280 MT 100K CONV MODE STOP ALF=2 THD=4 PP=6 XZP=-1

TEST 530 RUN 42 POINT 4

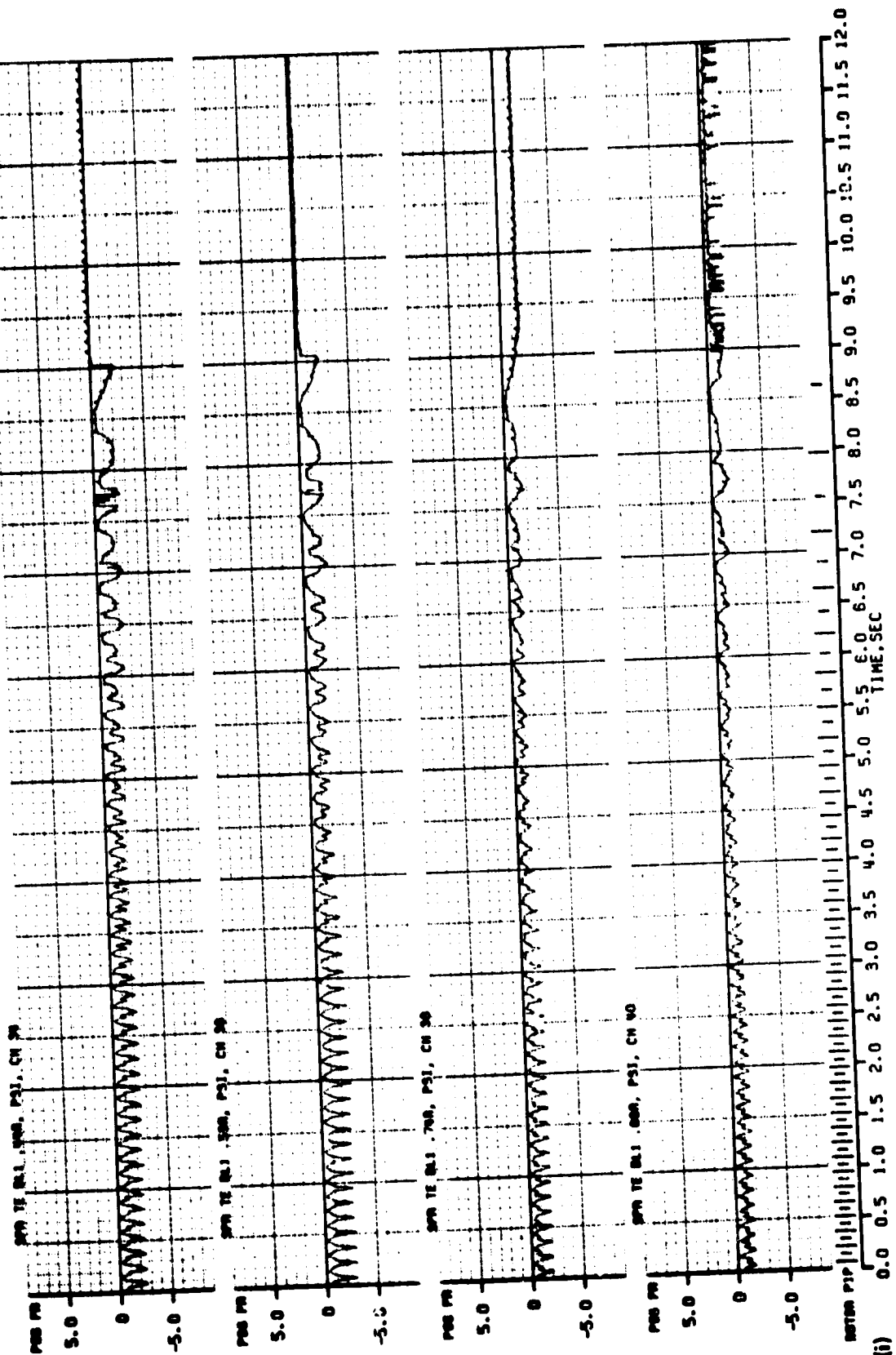


Figure 6.- Continued.

X-MING 80860 NT 180K CONV MODE STOP ALF=2 TH0=-4 PP=6 X2P=-1

TEST 530 RUN 42 POINT N

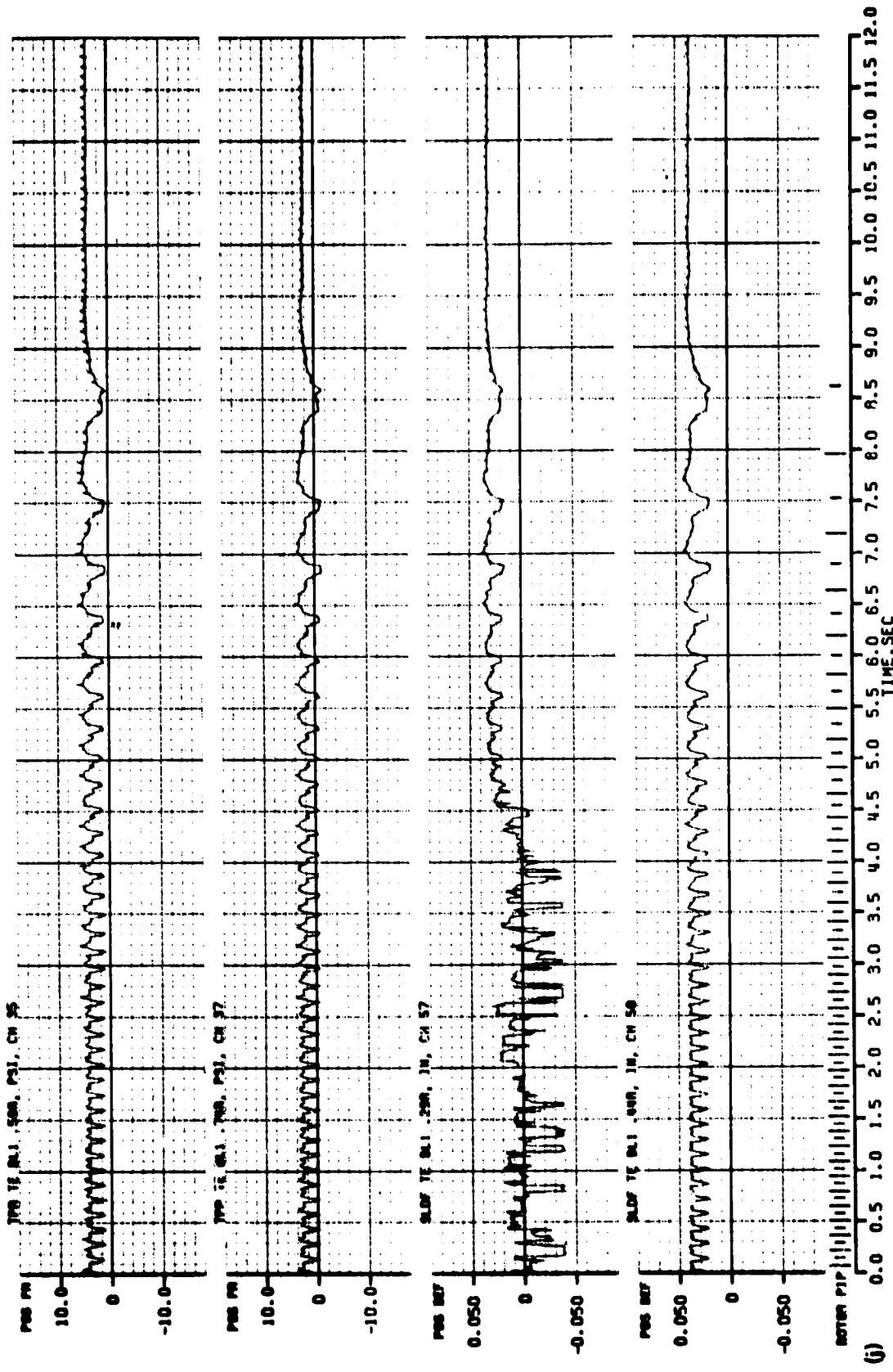


Figure 6.- Continued.

X-MING 40280 MT 180K CONV MODE STOP ALF=2 TH0=-4 PP=6 X2P=-1

TEST 538 RUN 42 POINT 4

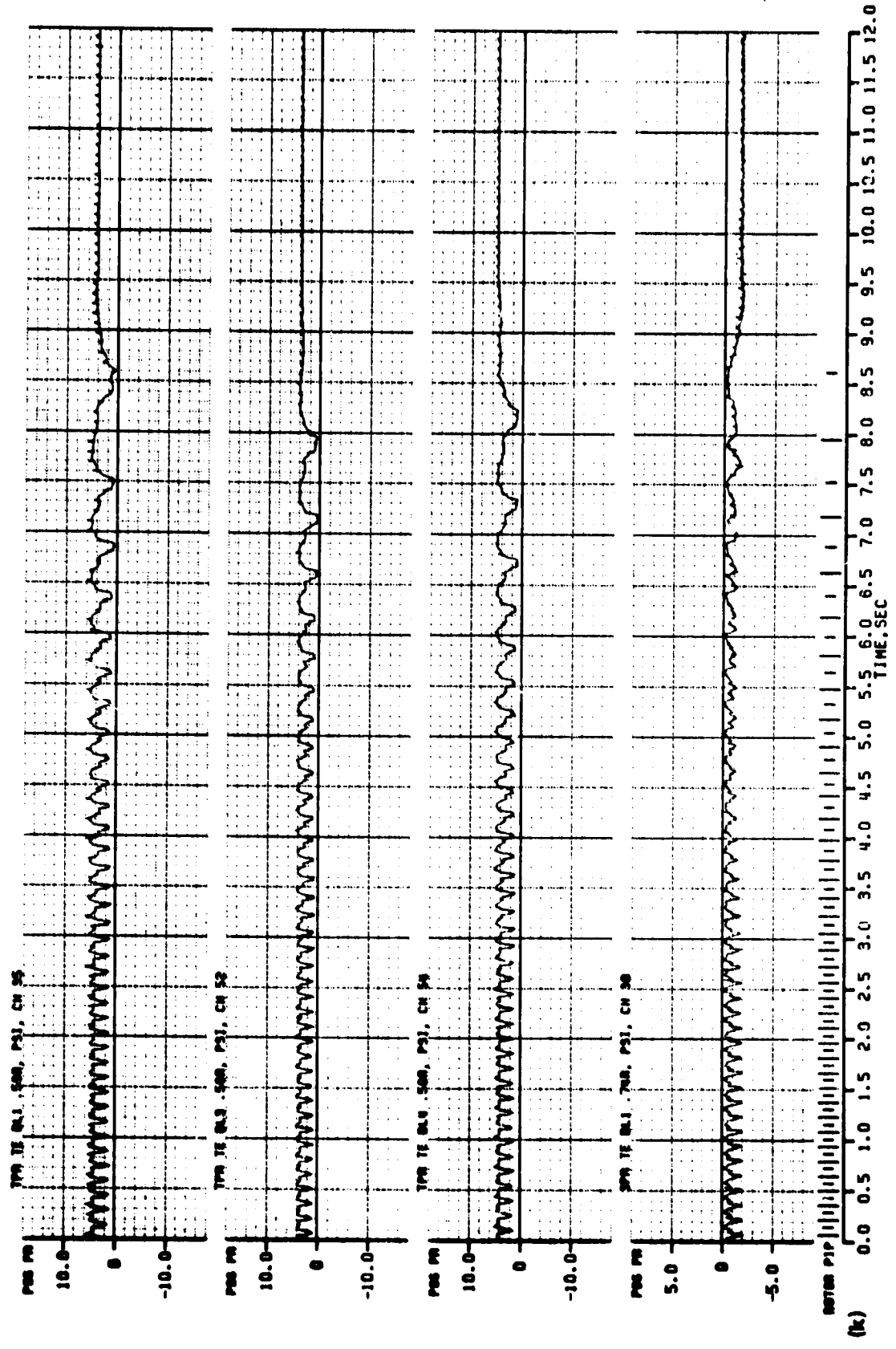


Figure 6.- Continued.

X-MING 40280 MT 180X CONV MODE STOP ALF=2 THD=-4 PP=6 X2P=-1

TEST 539 RUN 82 POINT 4

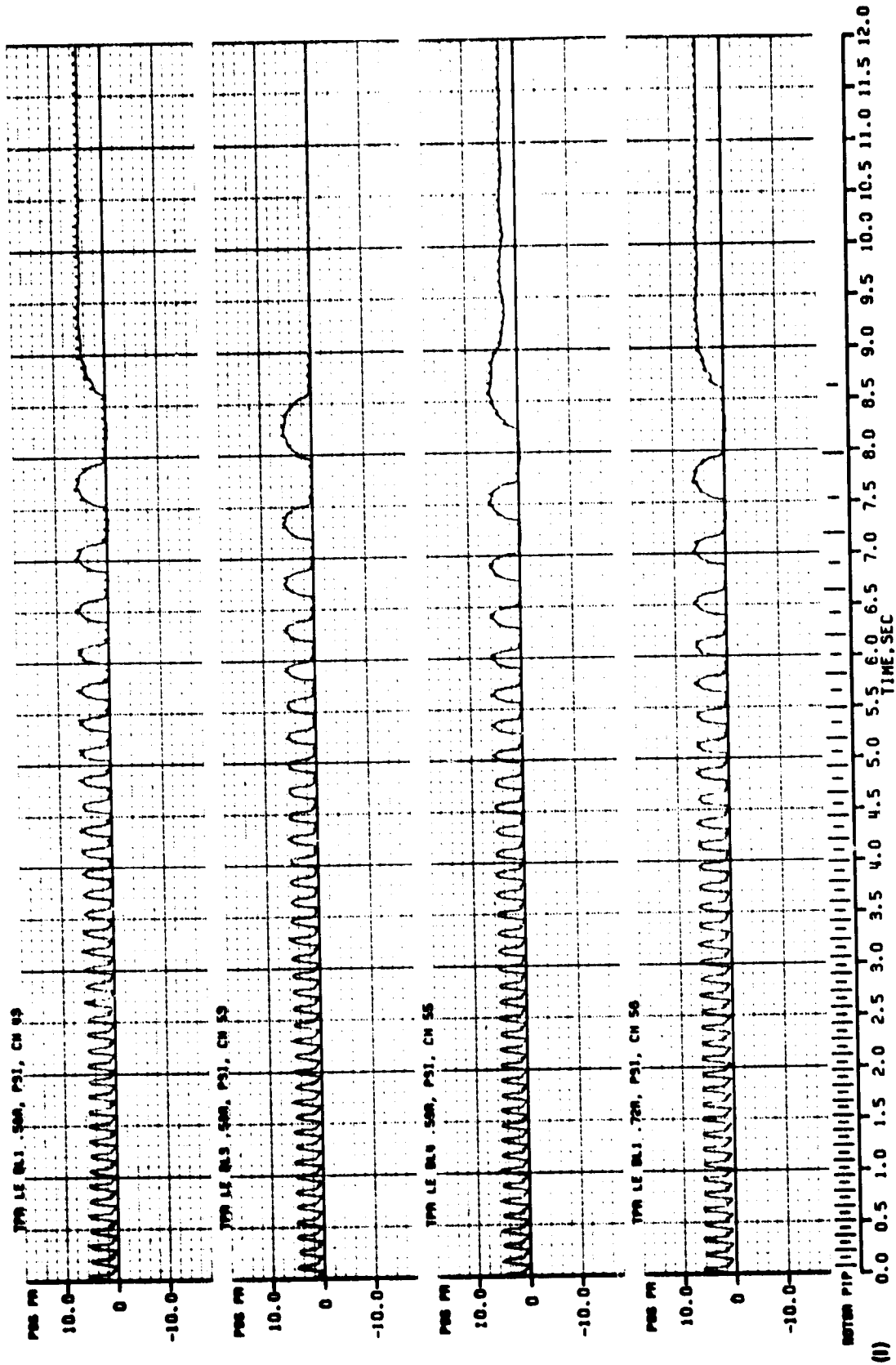


Figure 6.- Continued.

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X-MING 60X80 MT 180K CONV MODE STOP ALF-2 TH0--4 PP-6 X2P--1

TEST 599 RUN 42 POINT 4

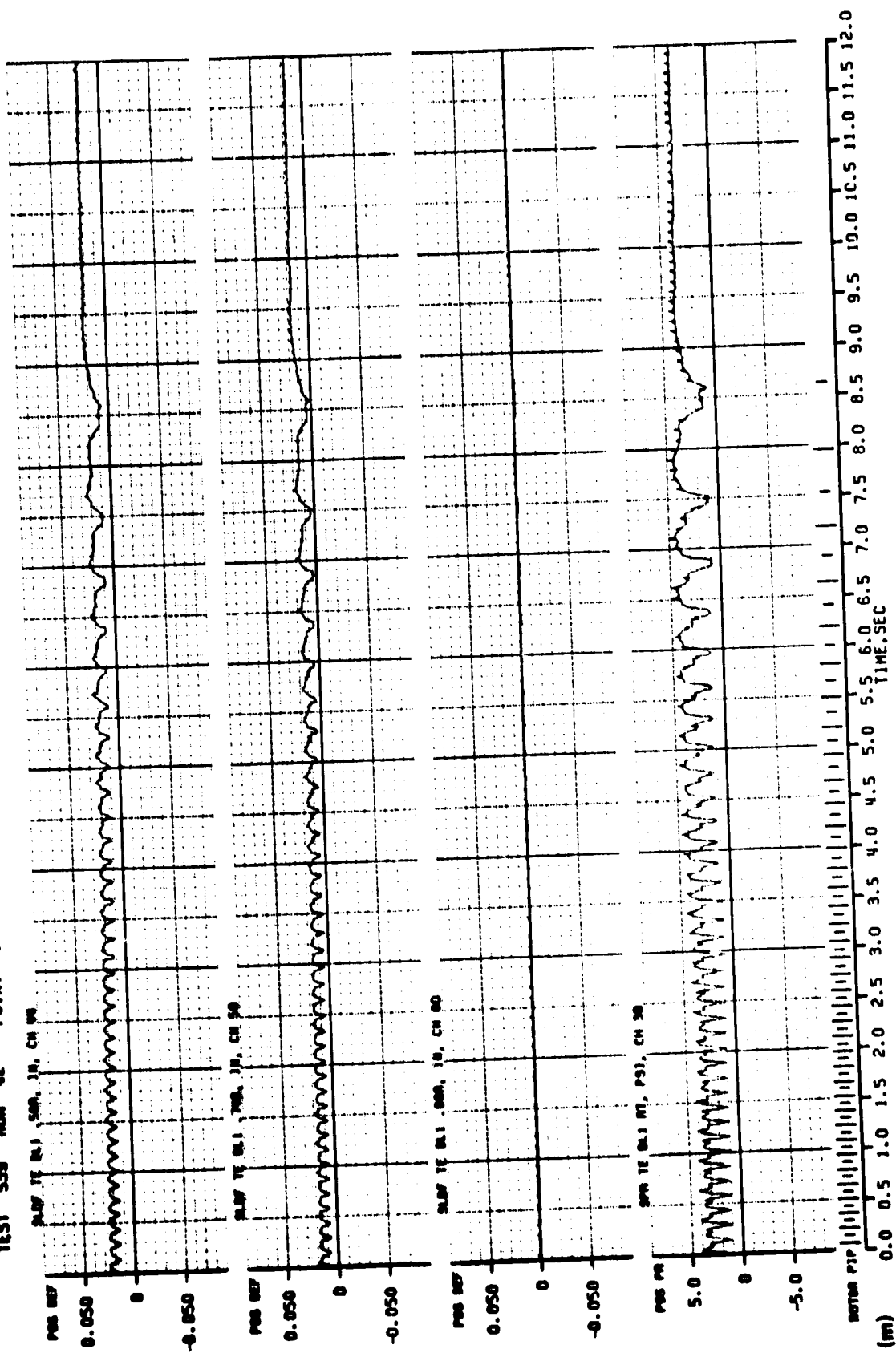


Figure 6.- Concluded.

A WING 40XPC MT 160K CONV MODE START ALF-2 TH0--4 PP-6 X2P--
 TEST 539 RUN 42 POINT 5

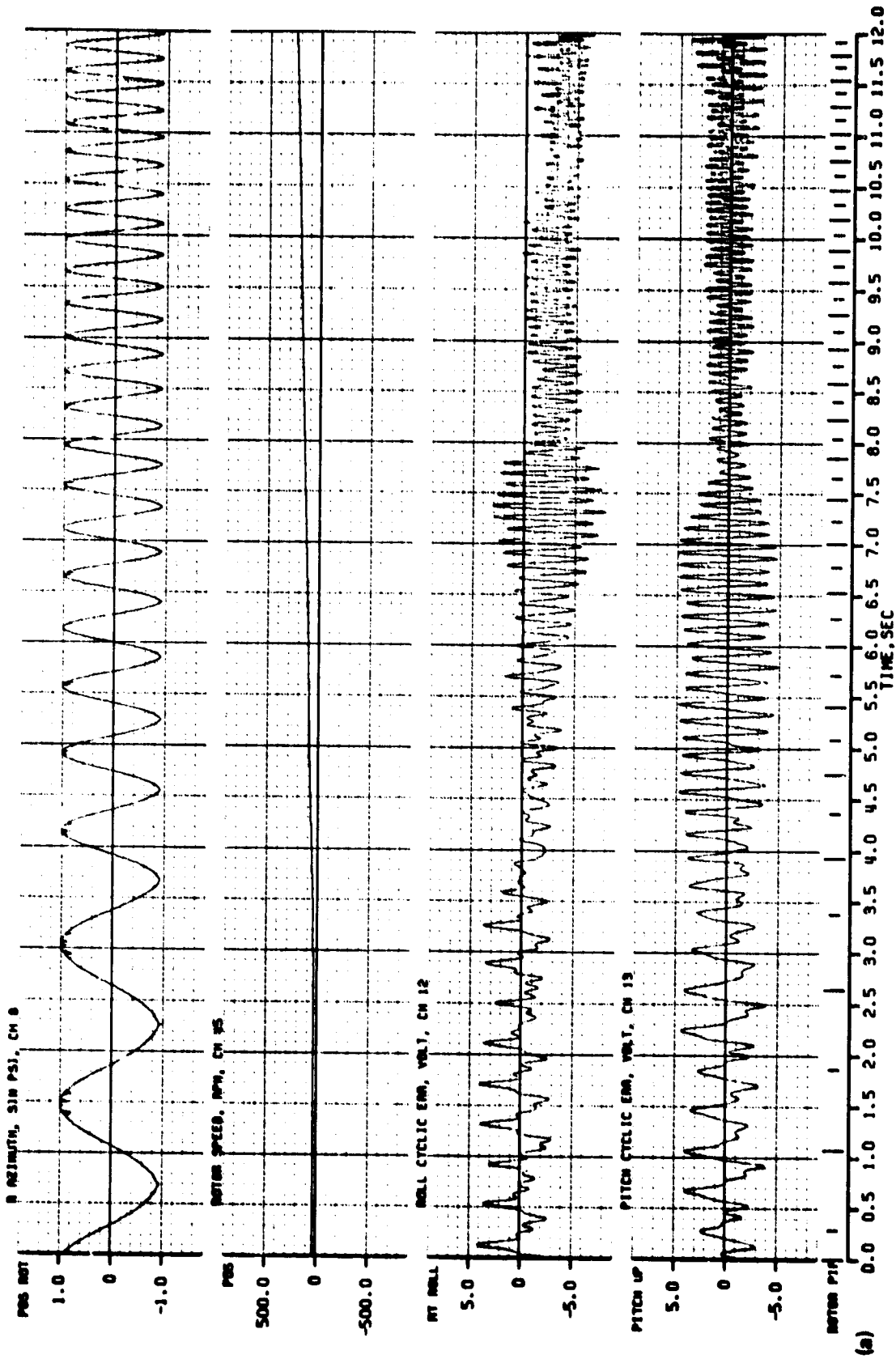
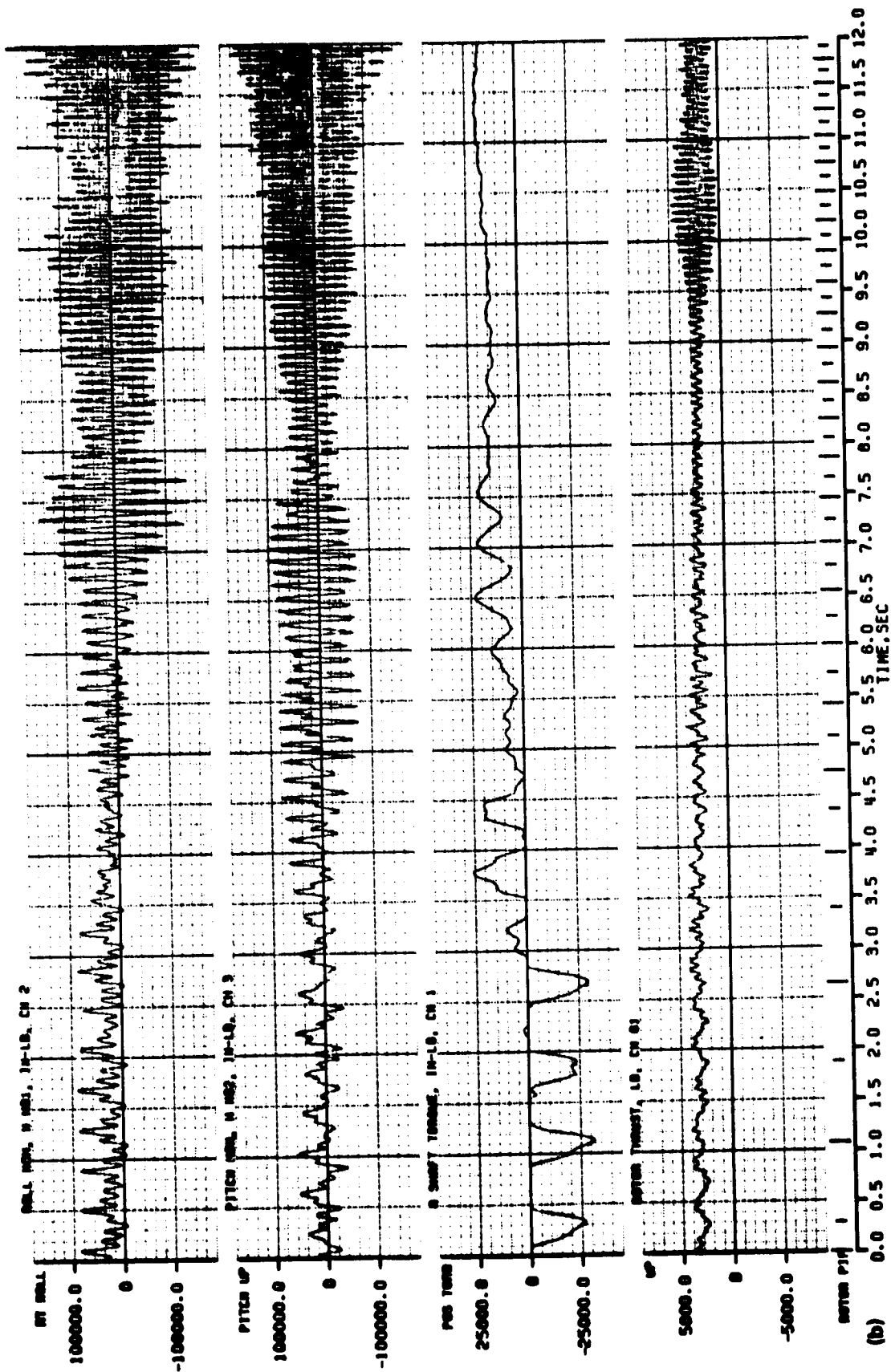


Figure 7.- Time history of run 42, data point 5, rotor transient from fixed-wing to rotary-wing mode.

X-WING 40180 WT 180K CONV MODE START RLF=2 TH0--W PP-6 X2P--

TEST 539 RUN N2 POINT 5



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Figure 7.- Continued.

X-WING 80X80 NT 180K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-
 TEST 539 RUN 42 POINT 5

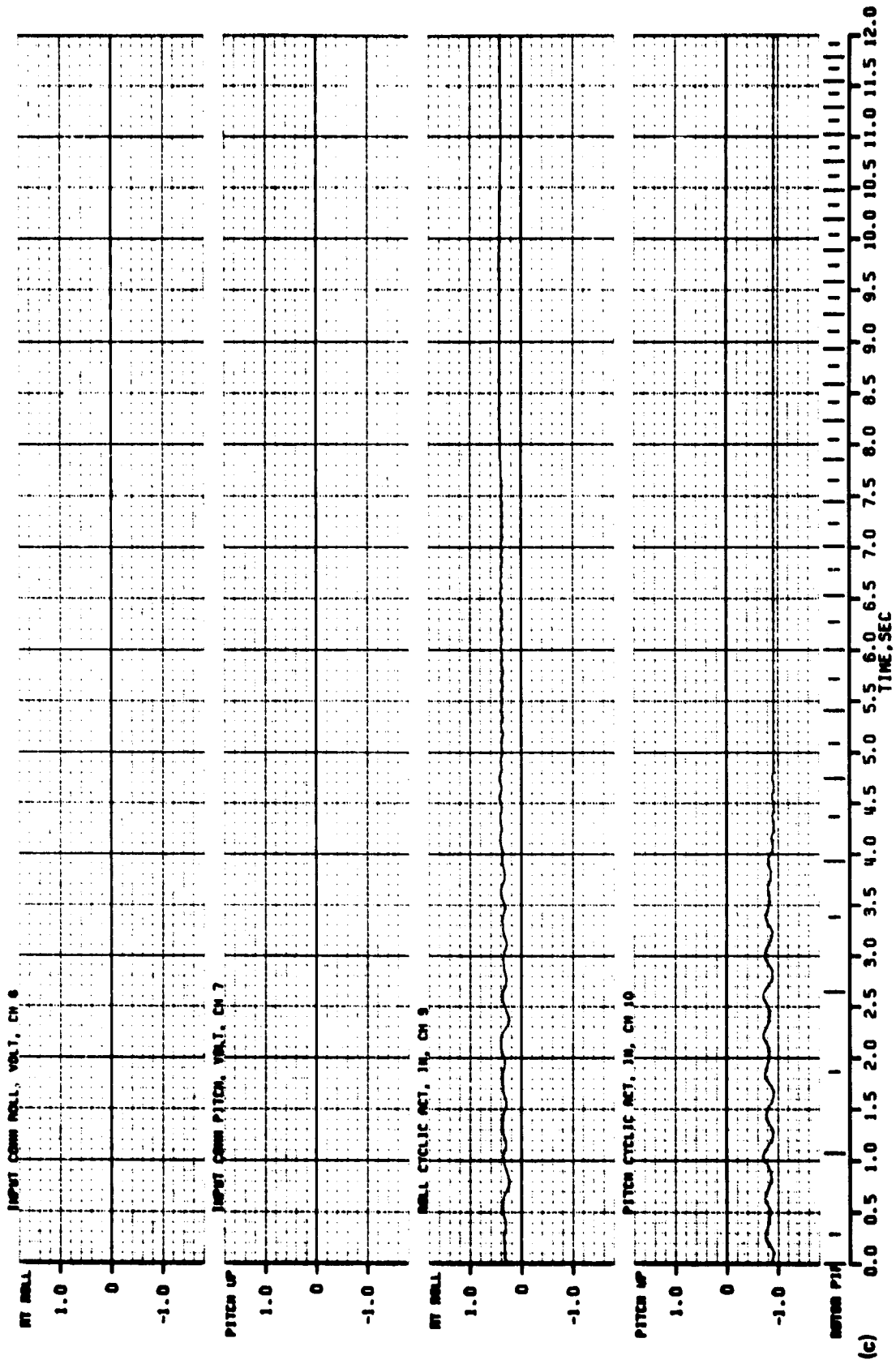
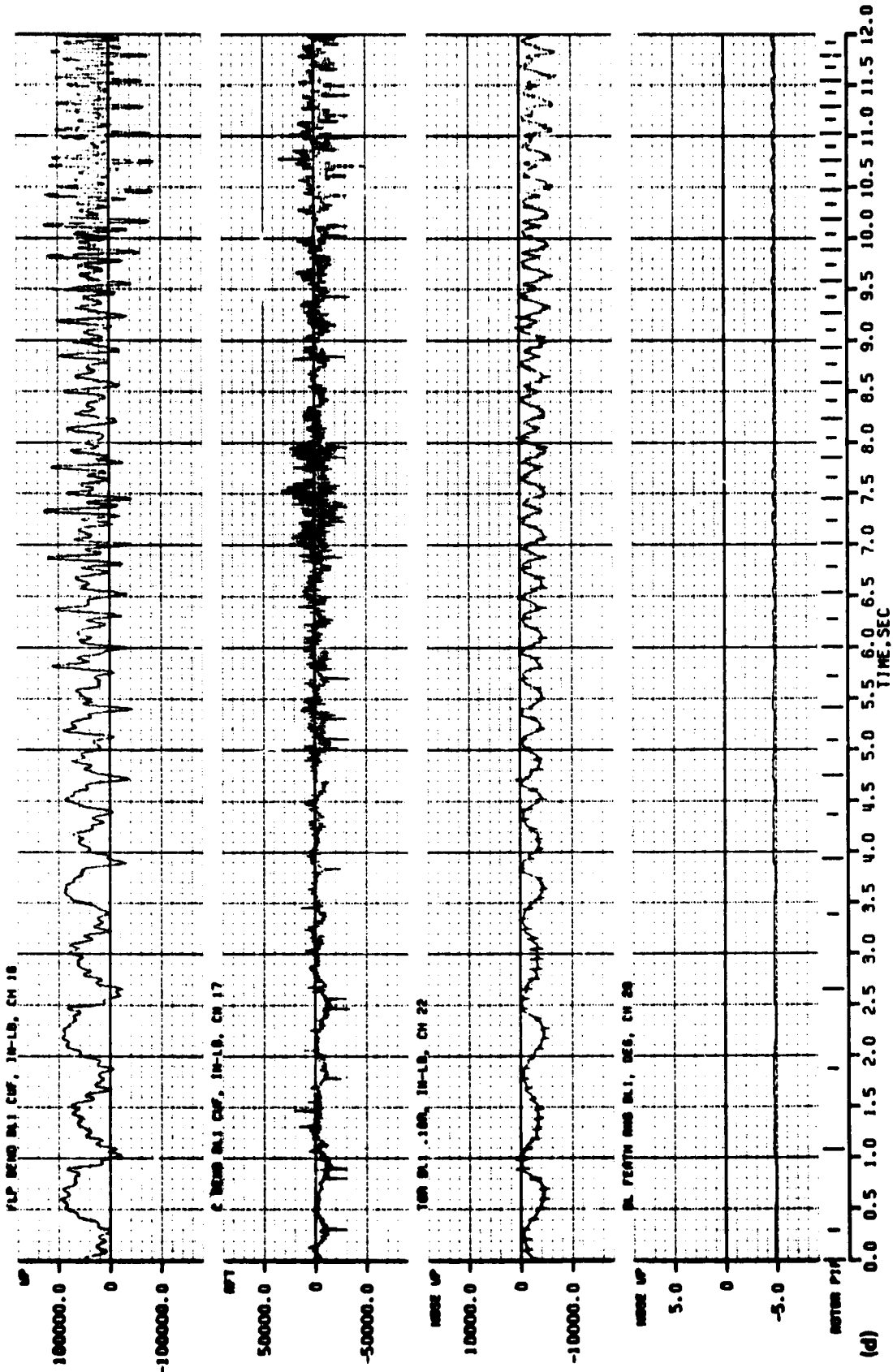


Figure 7.- Continued.

X-WING NO100 MT 180K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-

TEST 539 RUN 42 POINT 5



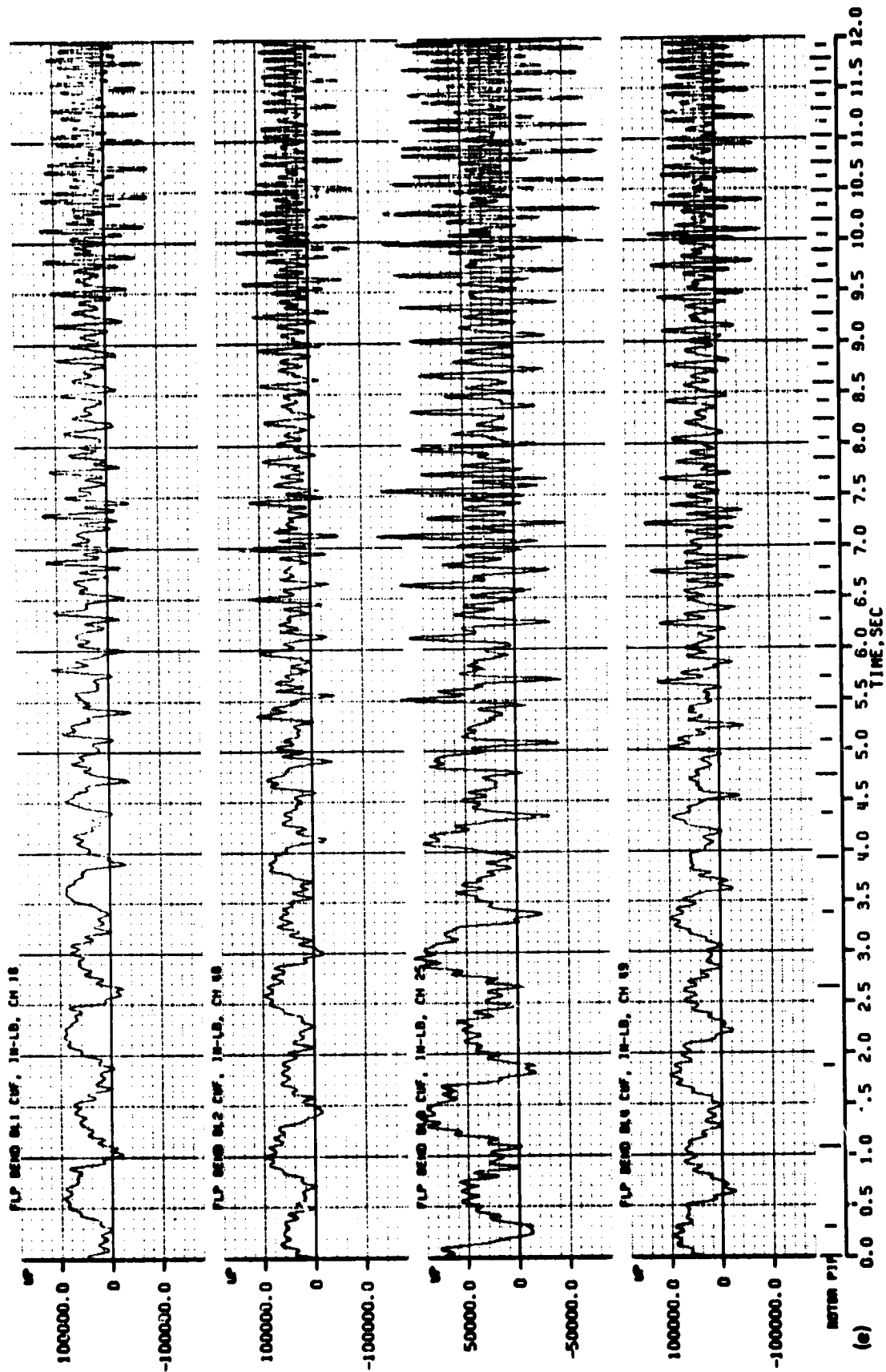
174

Figure 7.- Continued.

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X-WING 40X80 WT 180K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-

TEST 539 RUN 62 POINT 5



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Figure 7.- Continued.

X-WING 40X80 MT 180K CONV MODE START ALF=2 TH0=-N PP=6 X2P=-

TEST 539 RUN N2 POINT 5

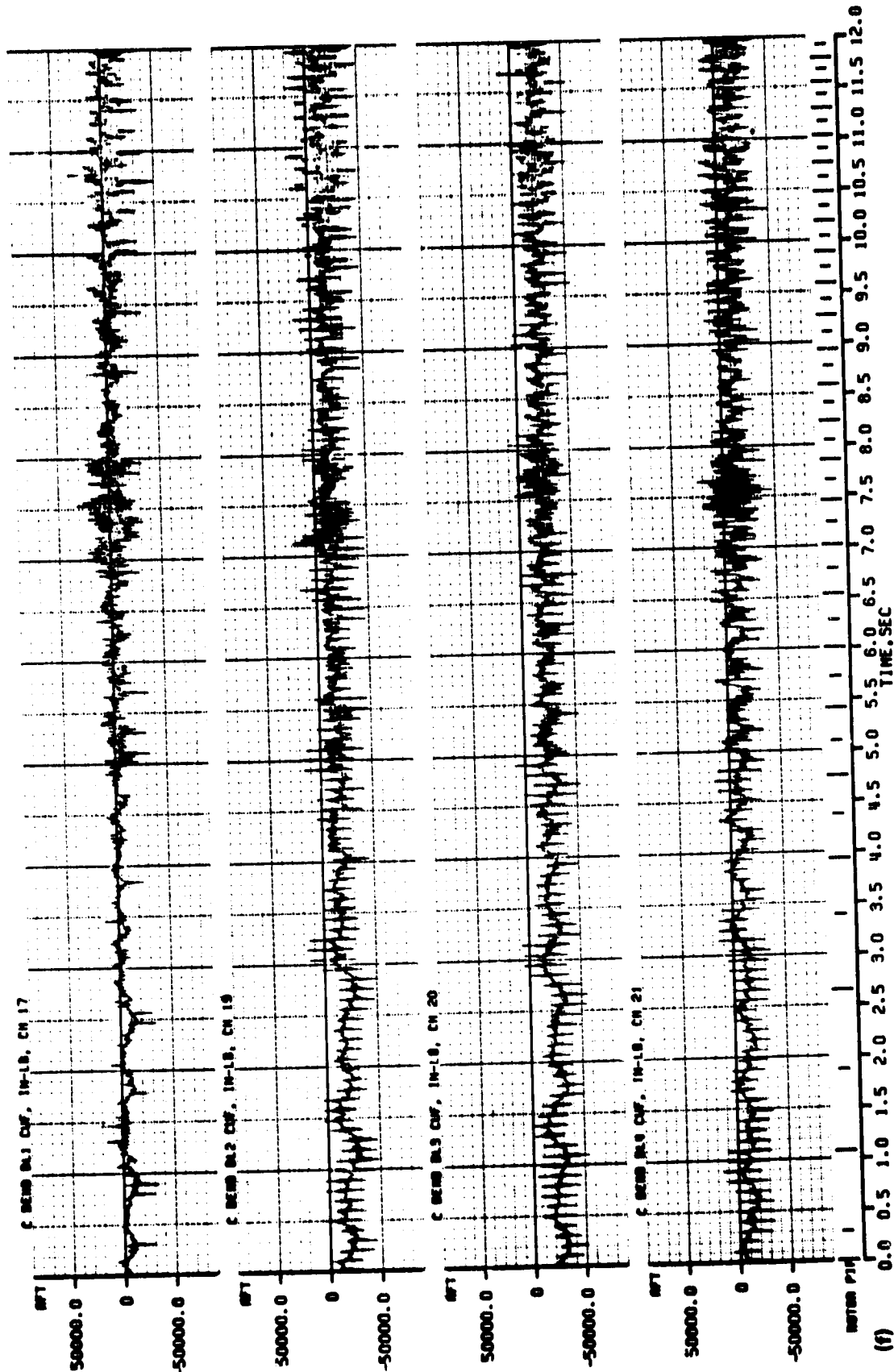


Figure 7.- Continued.

X-RING 40X80 NT 180K CONV MODE START ALF=2 TH0=4 PP=6 X2P=-

TEST 539 RUN 42 POINT 5

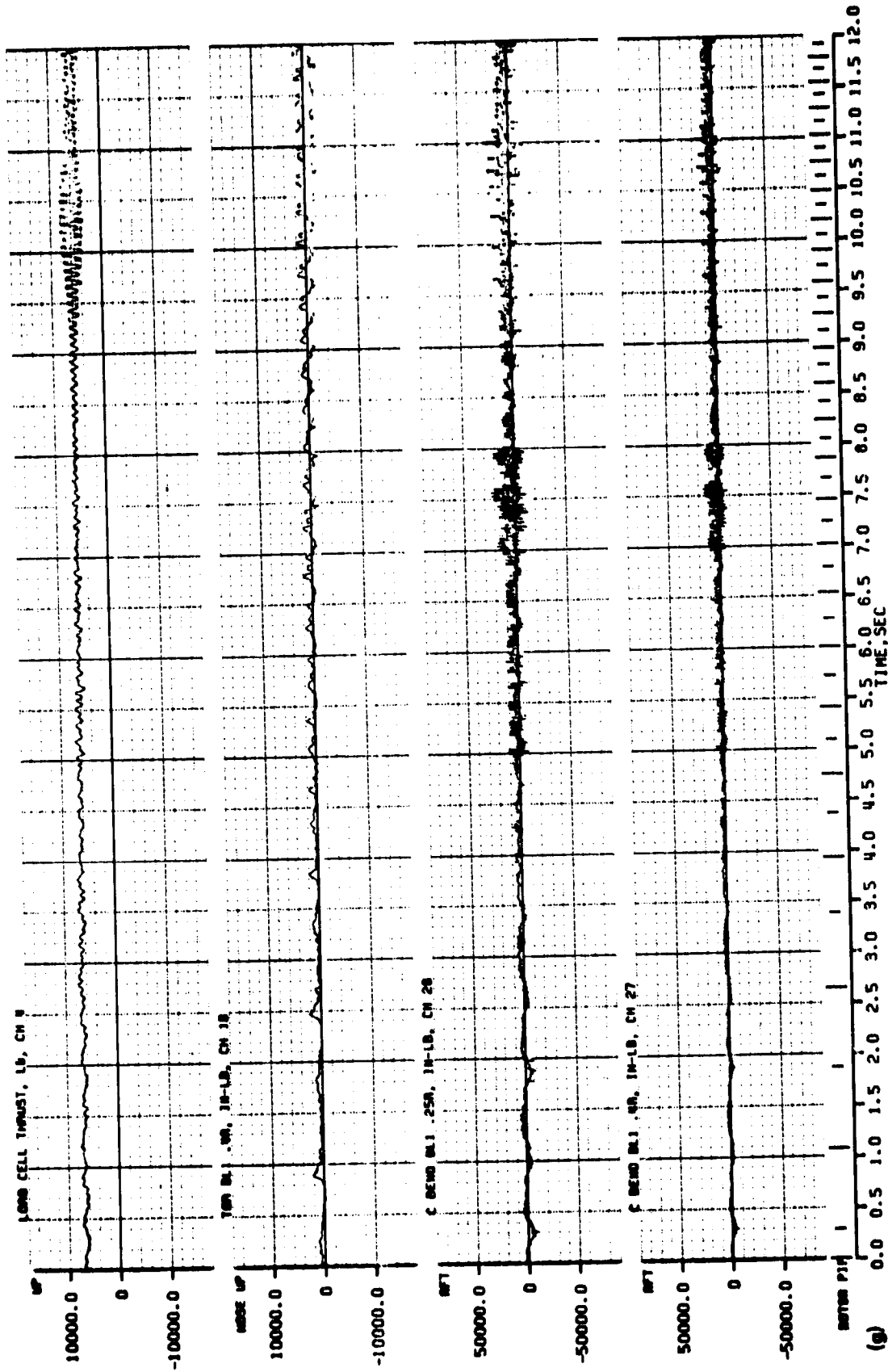


Figure 7.- Continued.

X-WING 40X00 NT 160K CONV MODE START ALF-2 TNG--4 PP-6 X2P--
 TEST 539 RUN 42 POINT 5

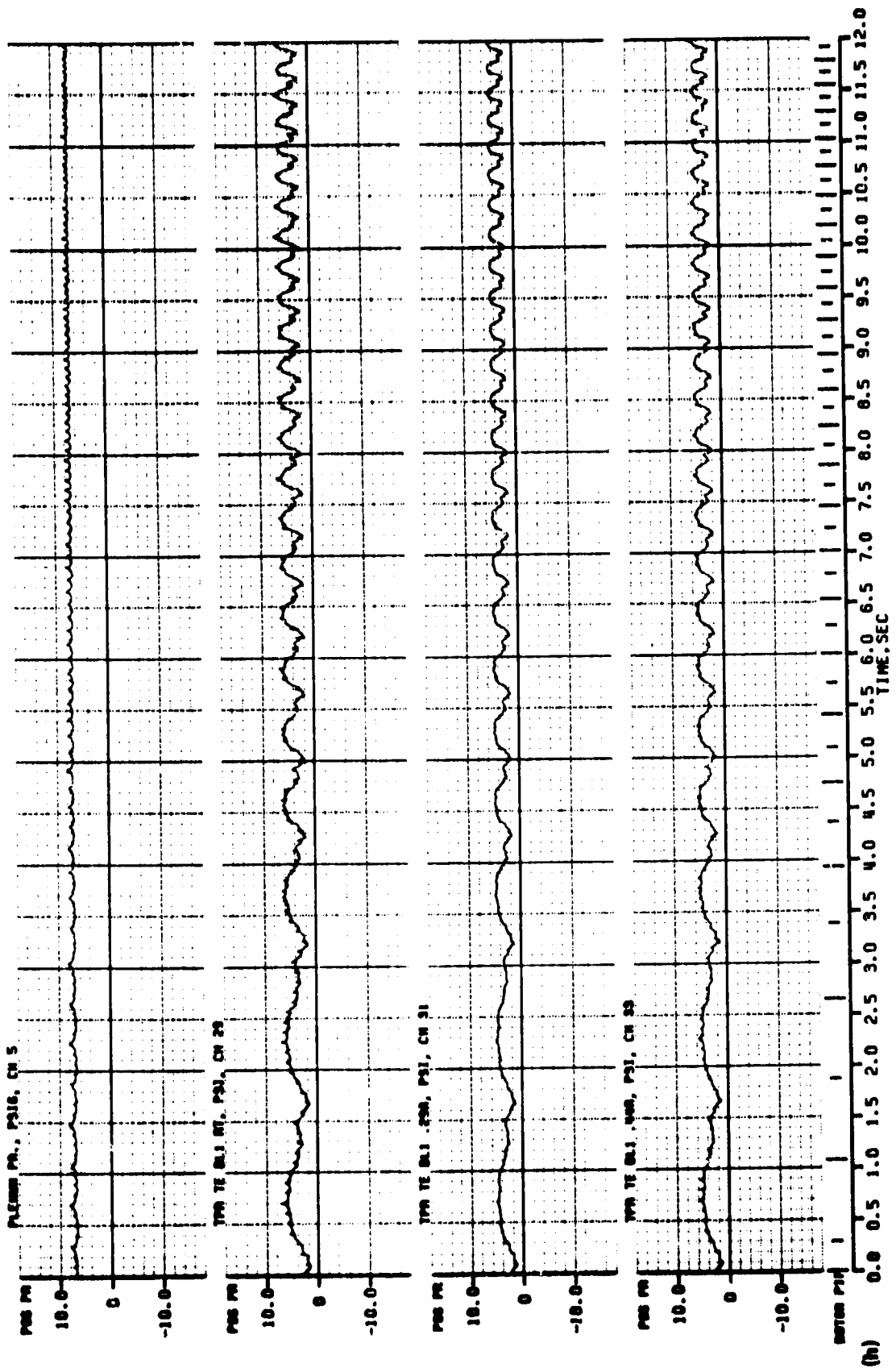


Figure 7.- Continued.

X-RING VOX80 WT 180K CONV MODE START ALF-2 TH0--4 PP-6 X2F--

TEST 539 RUN 42 POINT 5

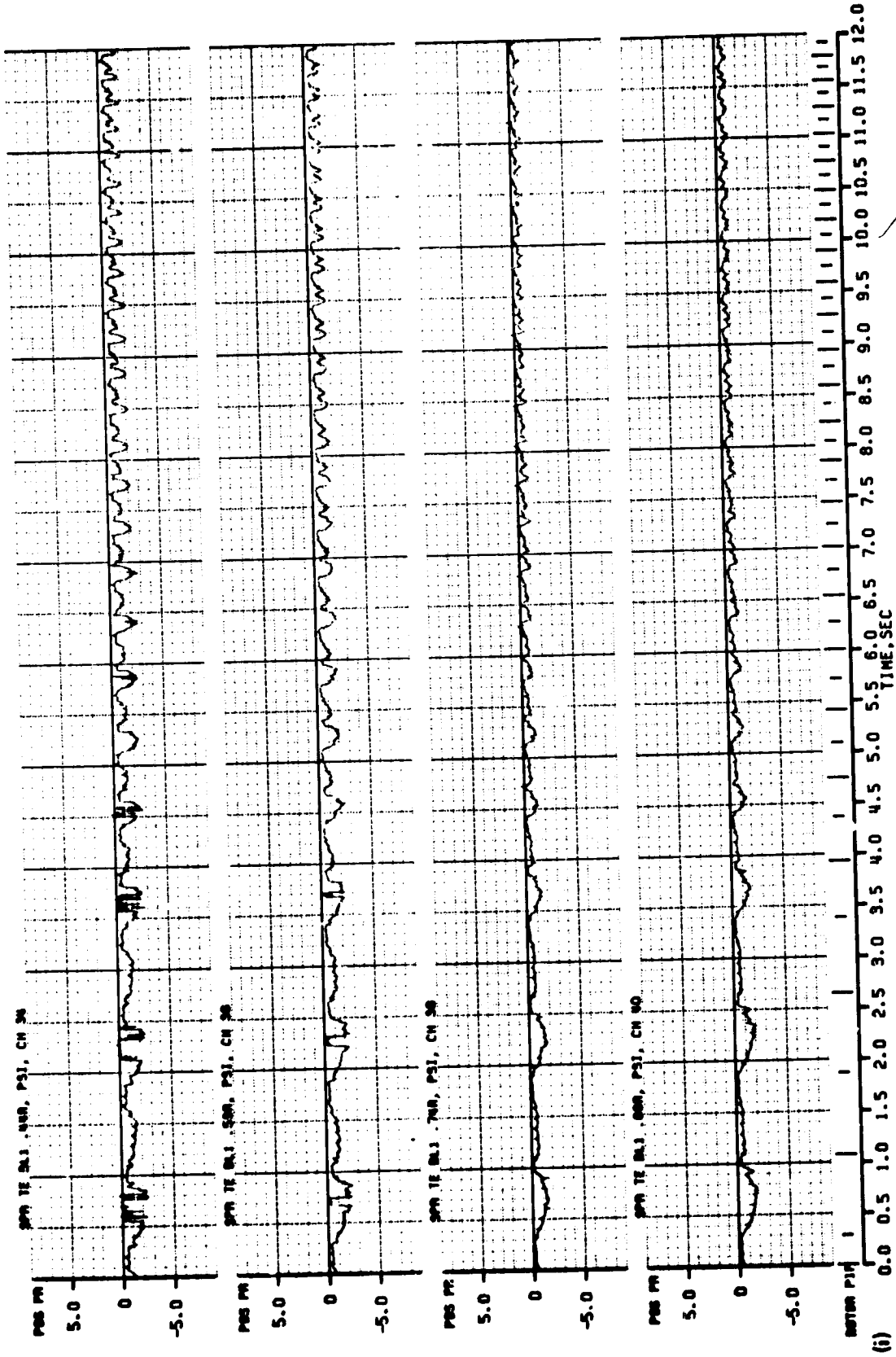


Figure 7.- Continued.

X-WING 40XCO MT 180X CONV MODE START ALF-2 THO--M PP-6 X2P--
 TEST 536 NUM 42 POINT 5

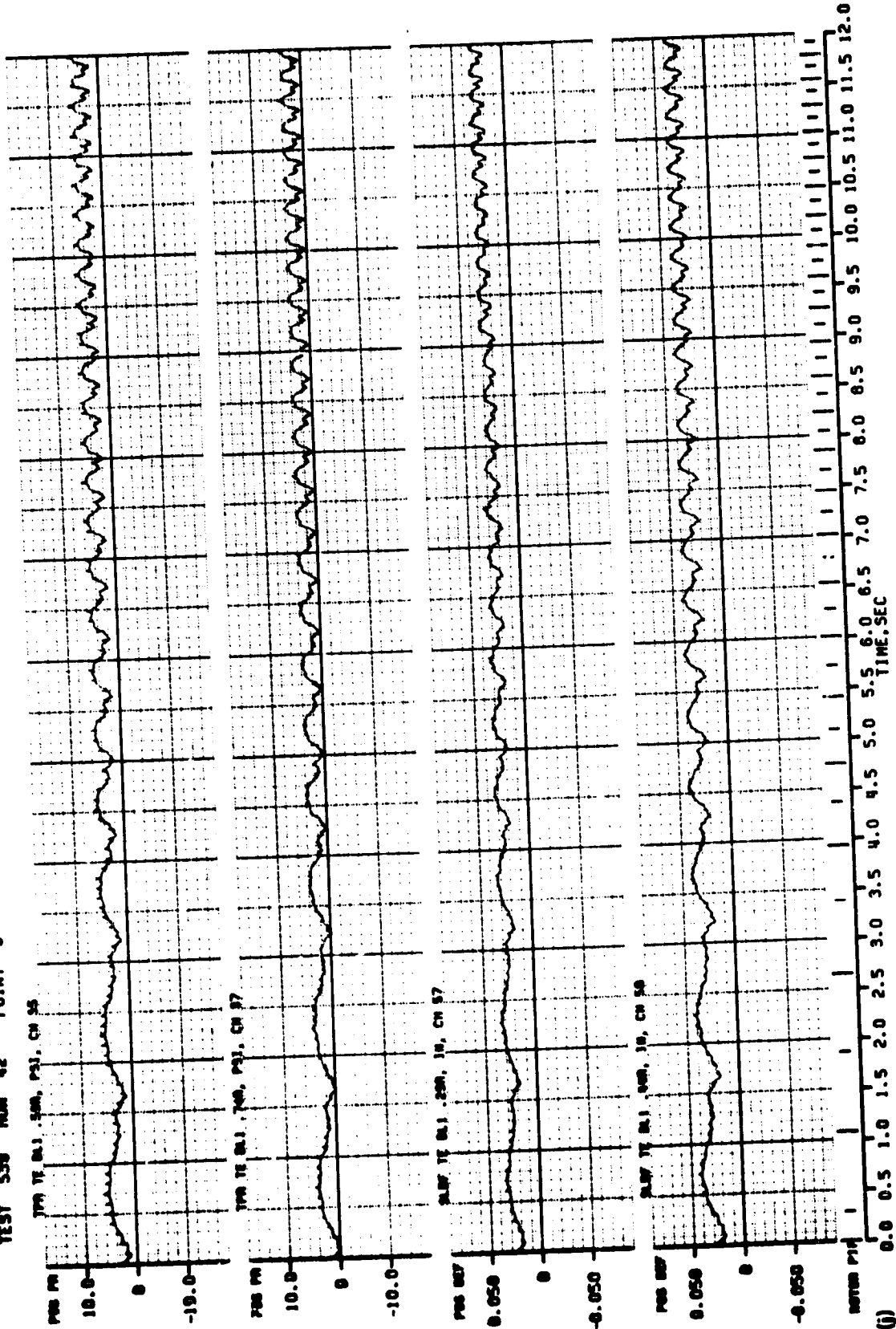


Figure 7.- Continued.

X-WING 40X60 MT 180K CONV MODE START ALF=2 TH0=4 PP=6 X2P=-
 TEST 539 RUN 42 POINT 5

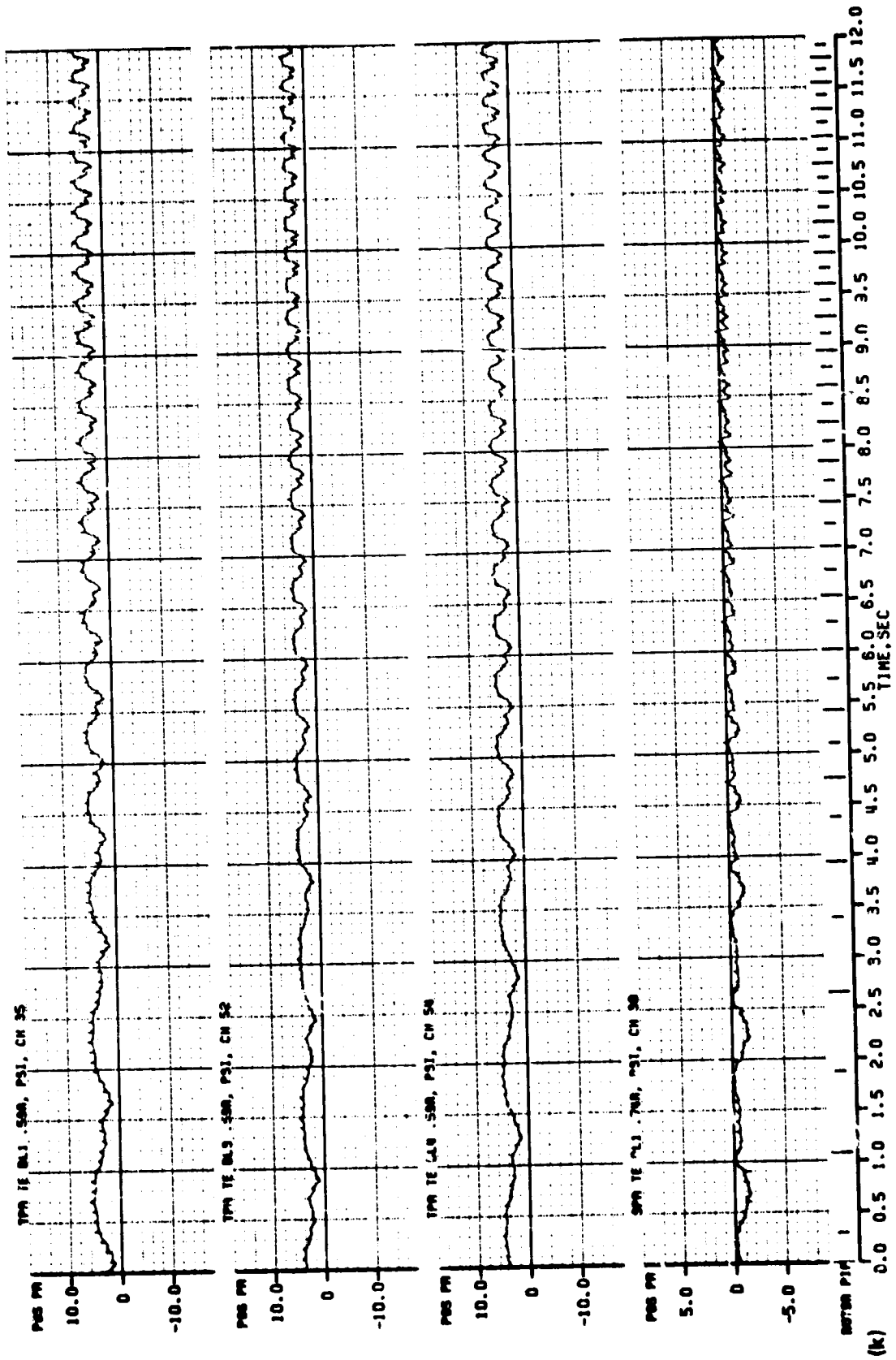
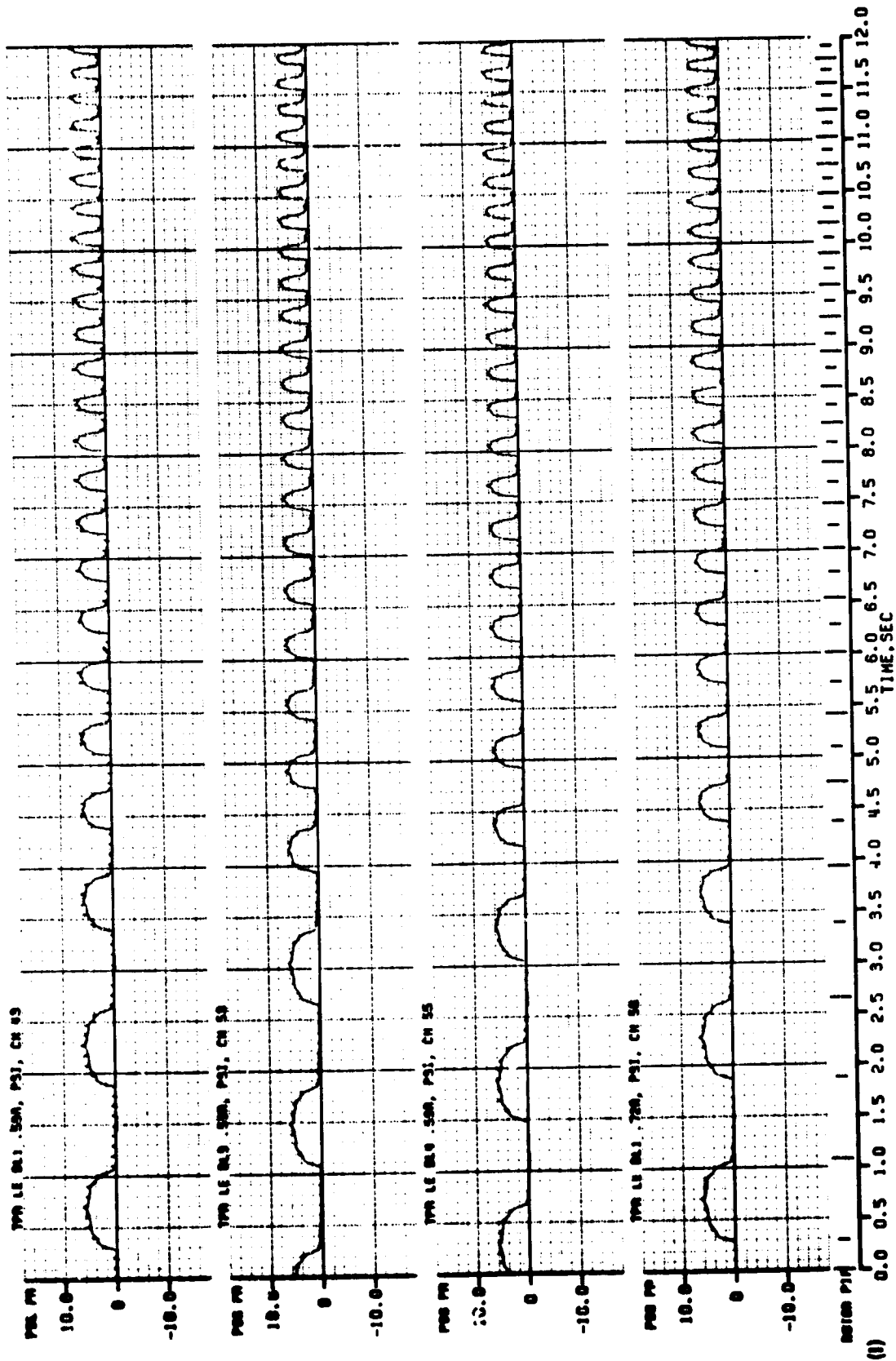


Figure 7.- Continued.

X-MING 40100 MT 180X CONV MCDE START ALF=2 TH0=-4 PP=6 X2P=-

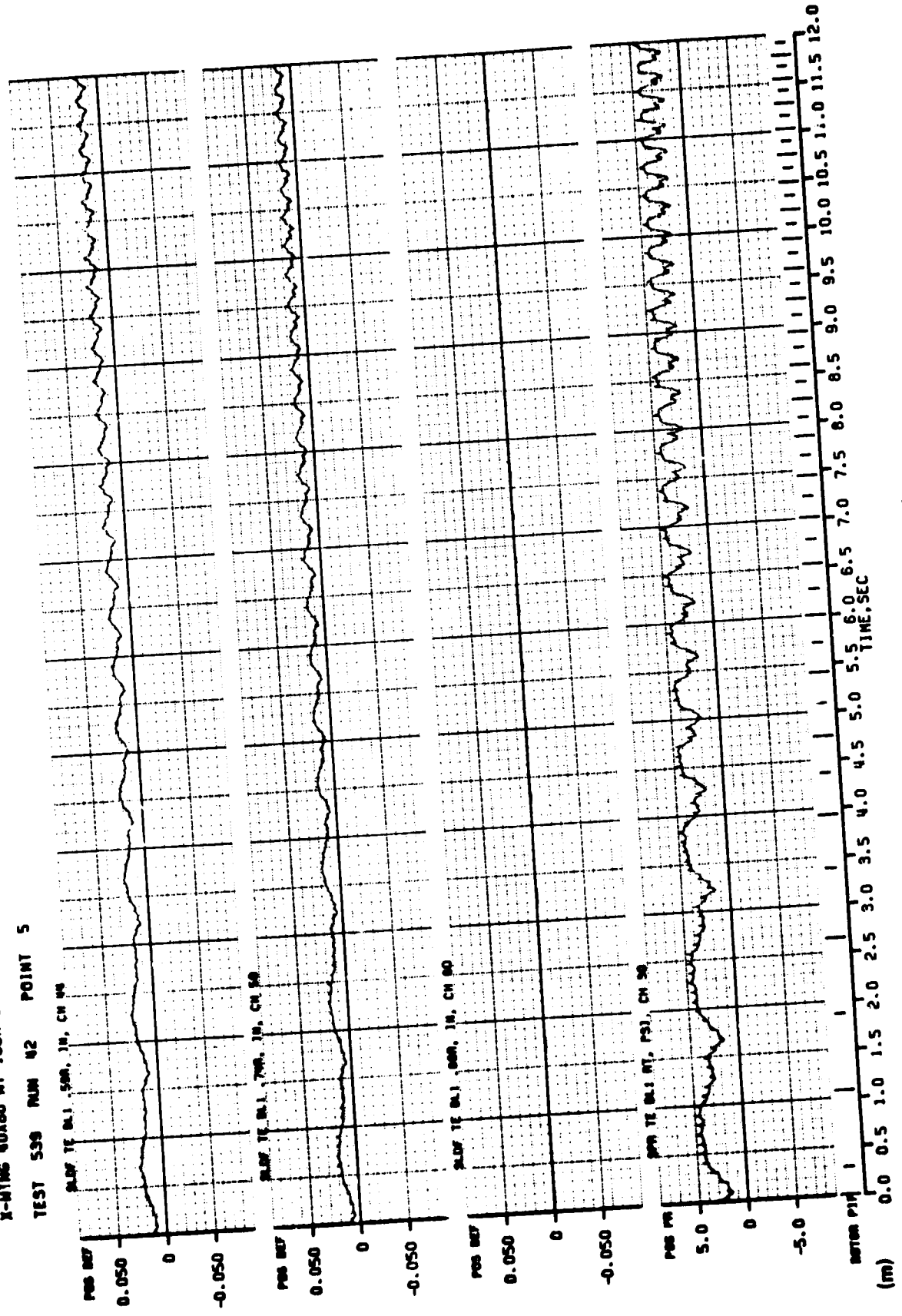
TEST 559 RUN 42 POINT 5



01-02-00

Figure 7.- Continued.

X-MING 40X80 MT 180K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-
 TEST 539 RUN N2 POINT 5



8-22-88

Figure 7.- Concluded.

X-WING NO120 HT 180K CONV MODE STEP ALF=2 THG=4 PP=6.9 X2P=

TEST 530 RUN 42 POINT 6

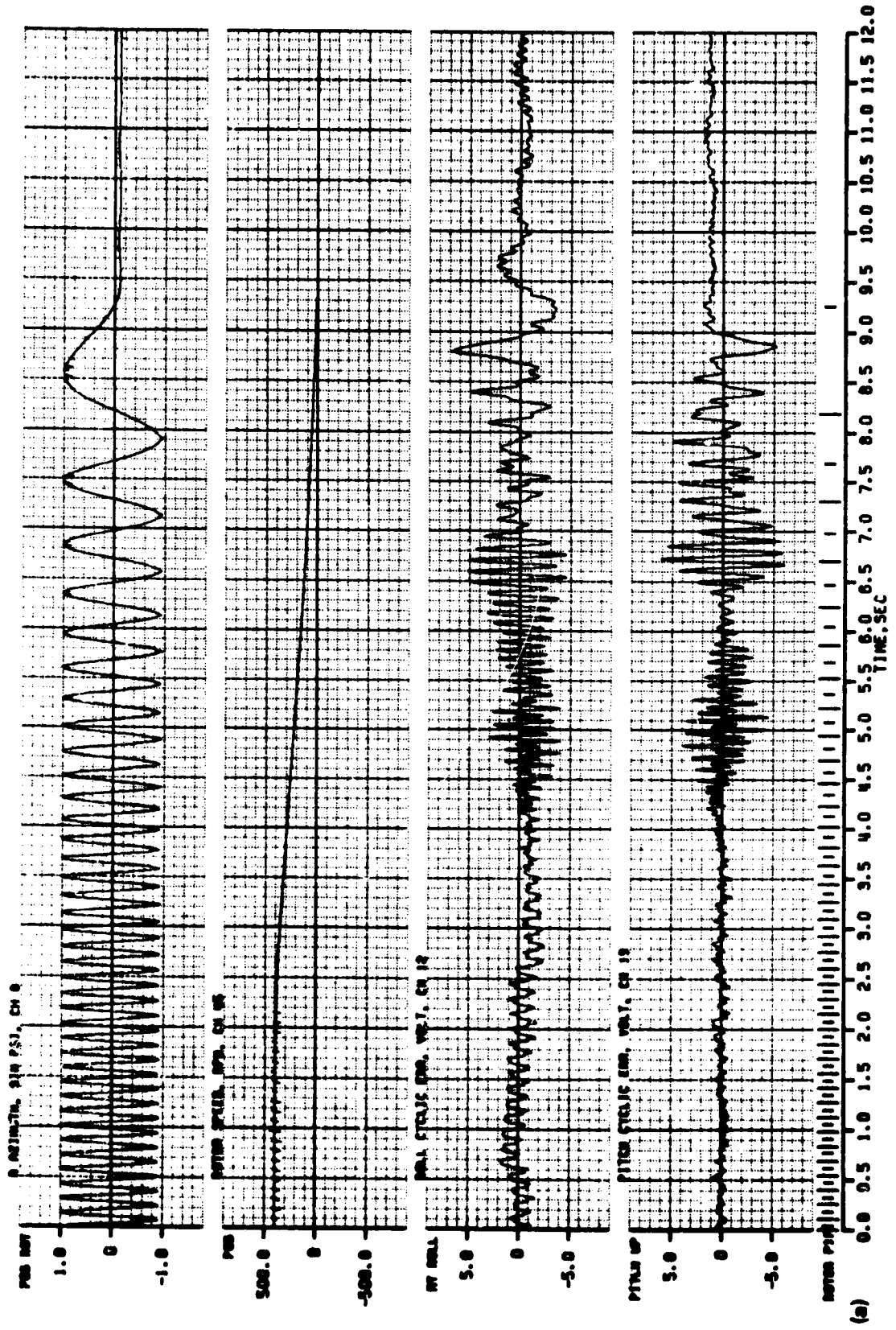
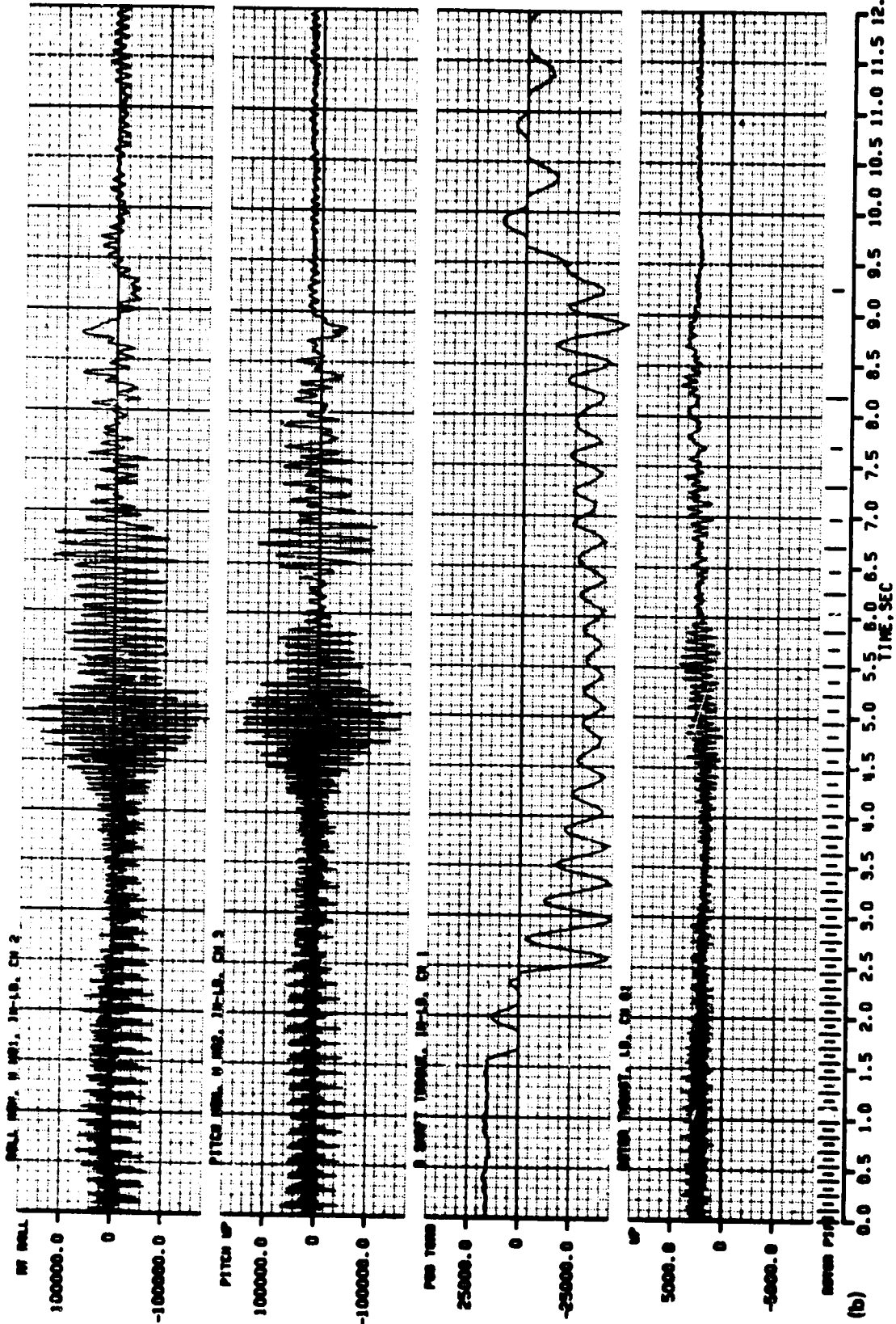


Figure 8.- Time history of run 42, data point 6, rotor transient from rotary-wing to fixed-wing mode.

X-NING 40180 MT 180X CONV MODE STOP ALF-2 THO--4 PP-6.9 X2P-

TEST 538 RUN 42 POINT 6



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Figure 8.- Continued.

X-MING W0100 NT 100K CONV MODE STDP ALF=2 TH0=-4 PP=6.9 X2P=-

TEST 550 RUN N2 POINT 6

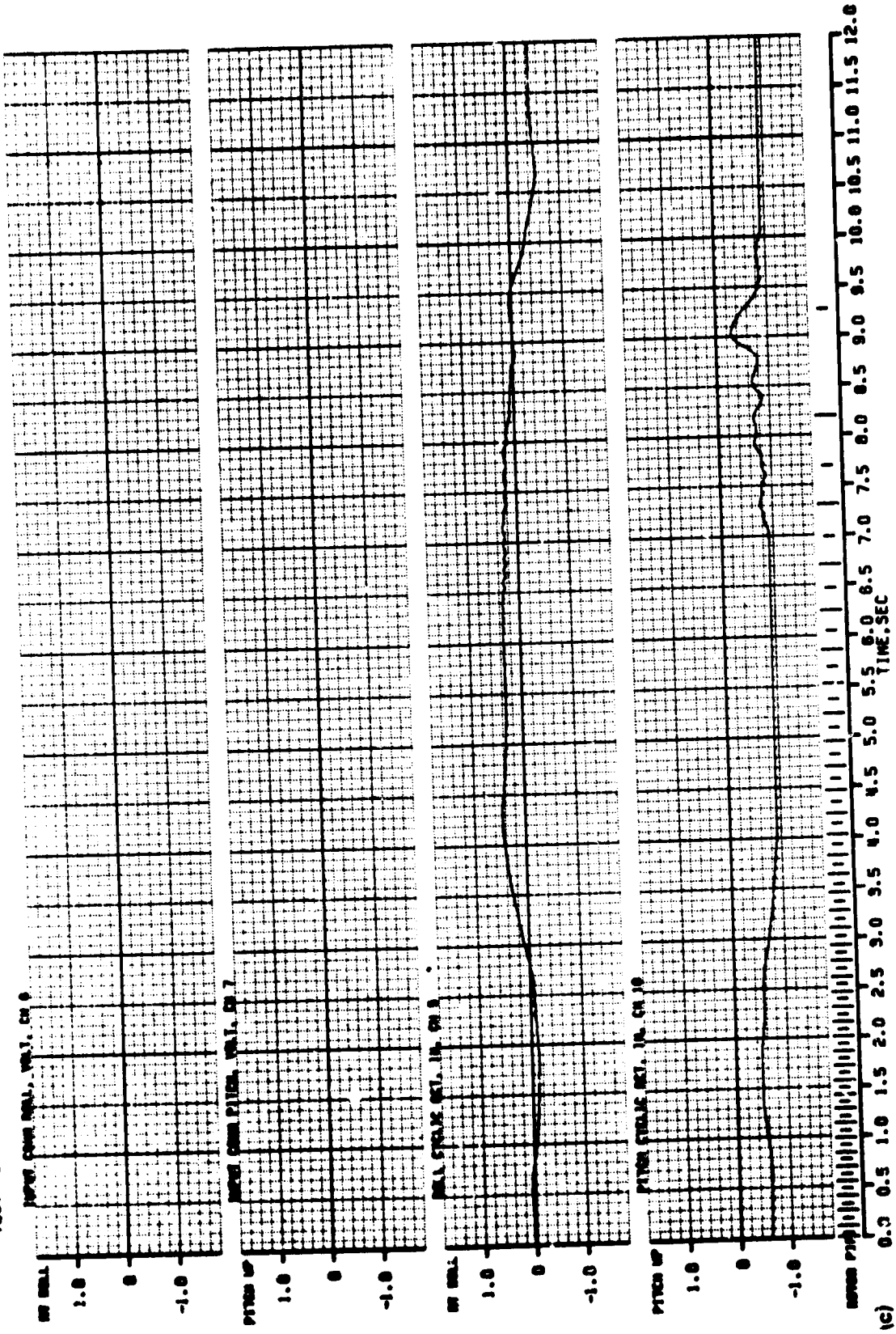
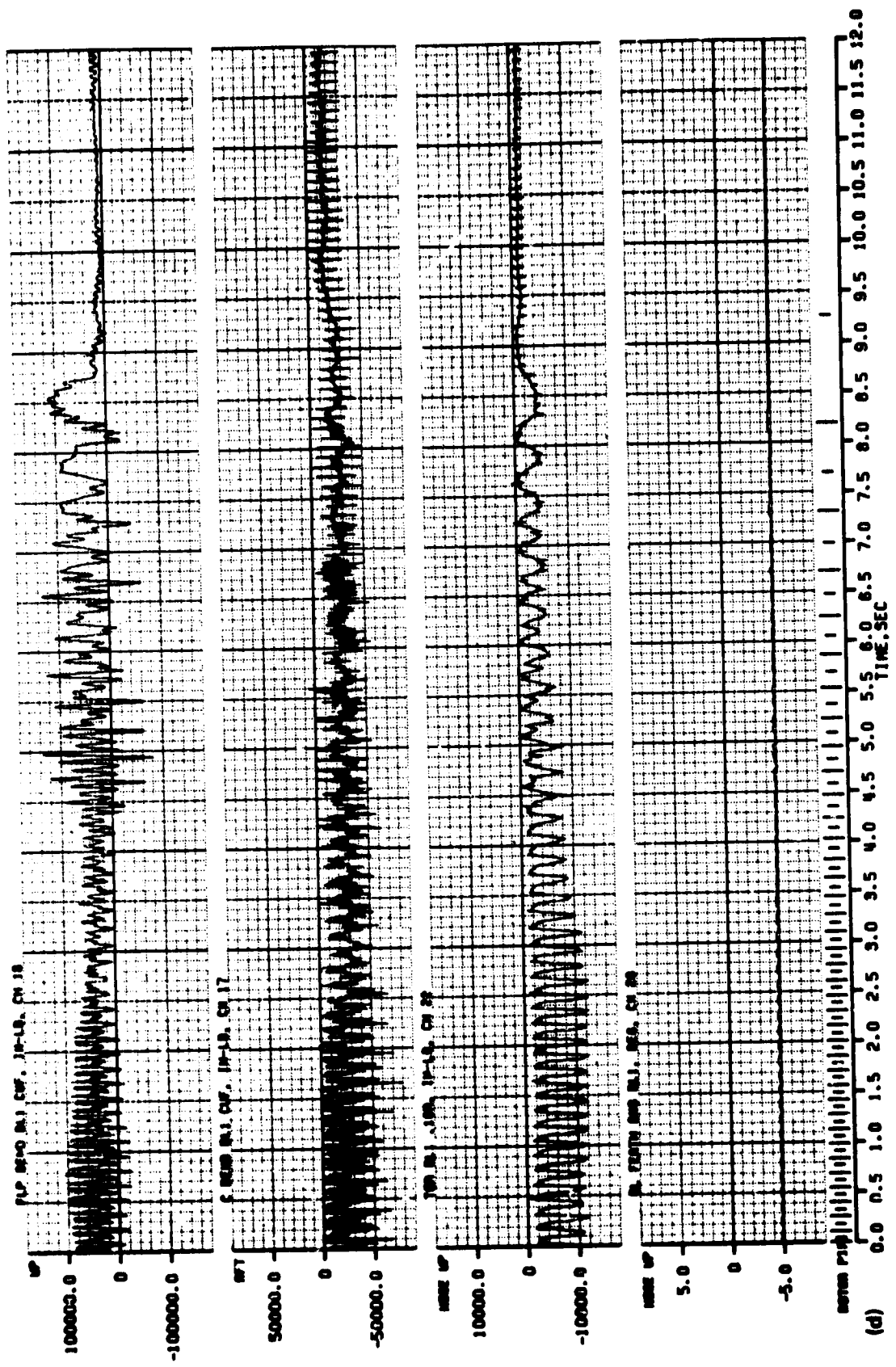


Figure 8.- Continued.

K-WING 40X80 WT 180X CMV MODE STOP ALF=2 THD=4 PP=6.9 X2P=

TEST 539 RUN 42 POINT 6

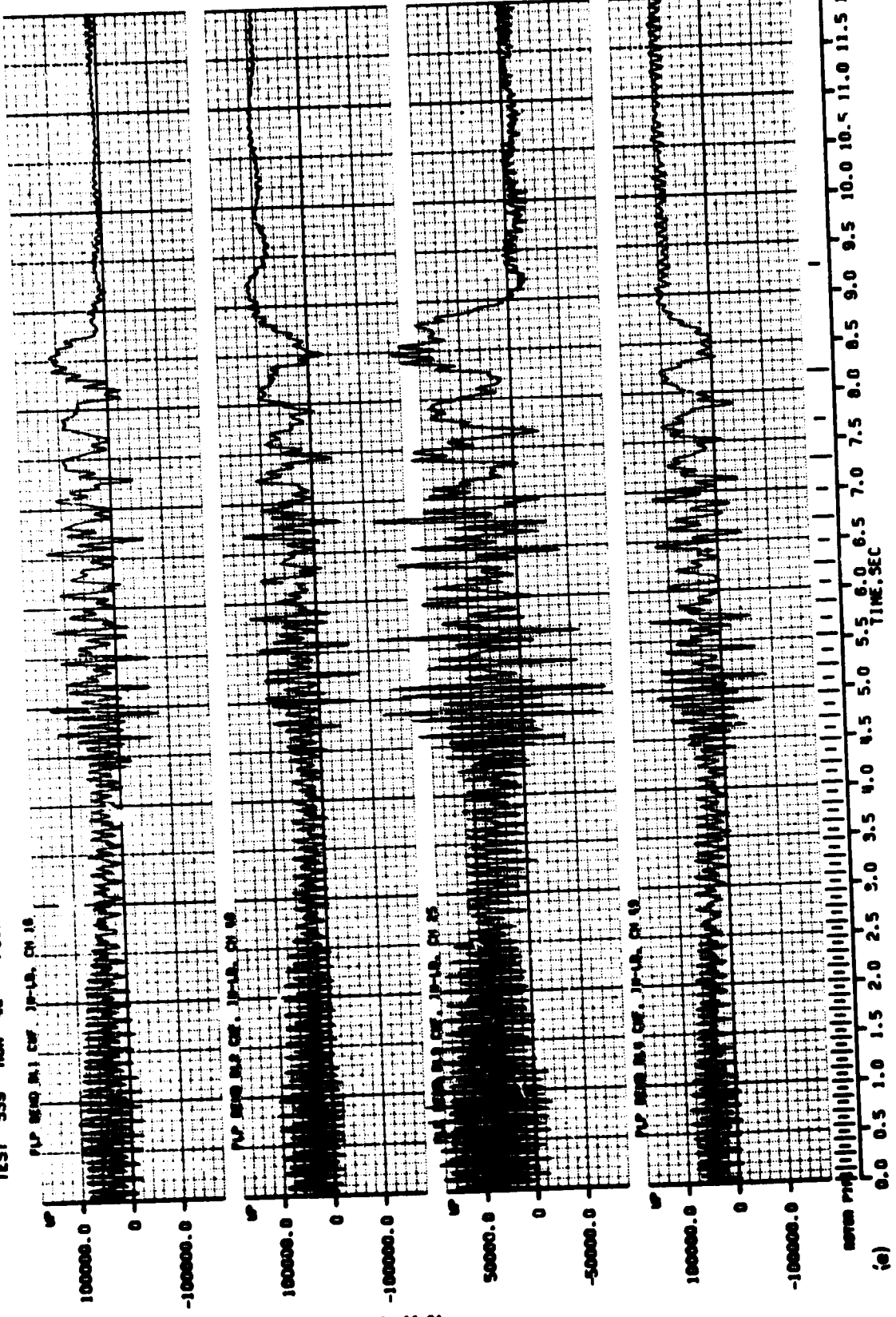


R-16-61

Figure 8.- Continued.

X-NING 40100 MT 180X CONV MODE STOP ALF=2 TMO=4 PP=6.9 X2P=

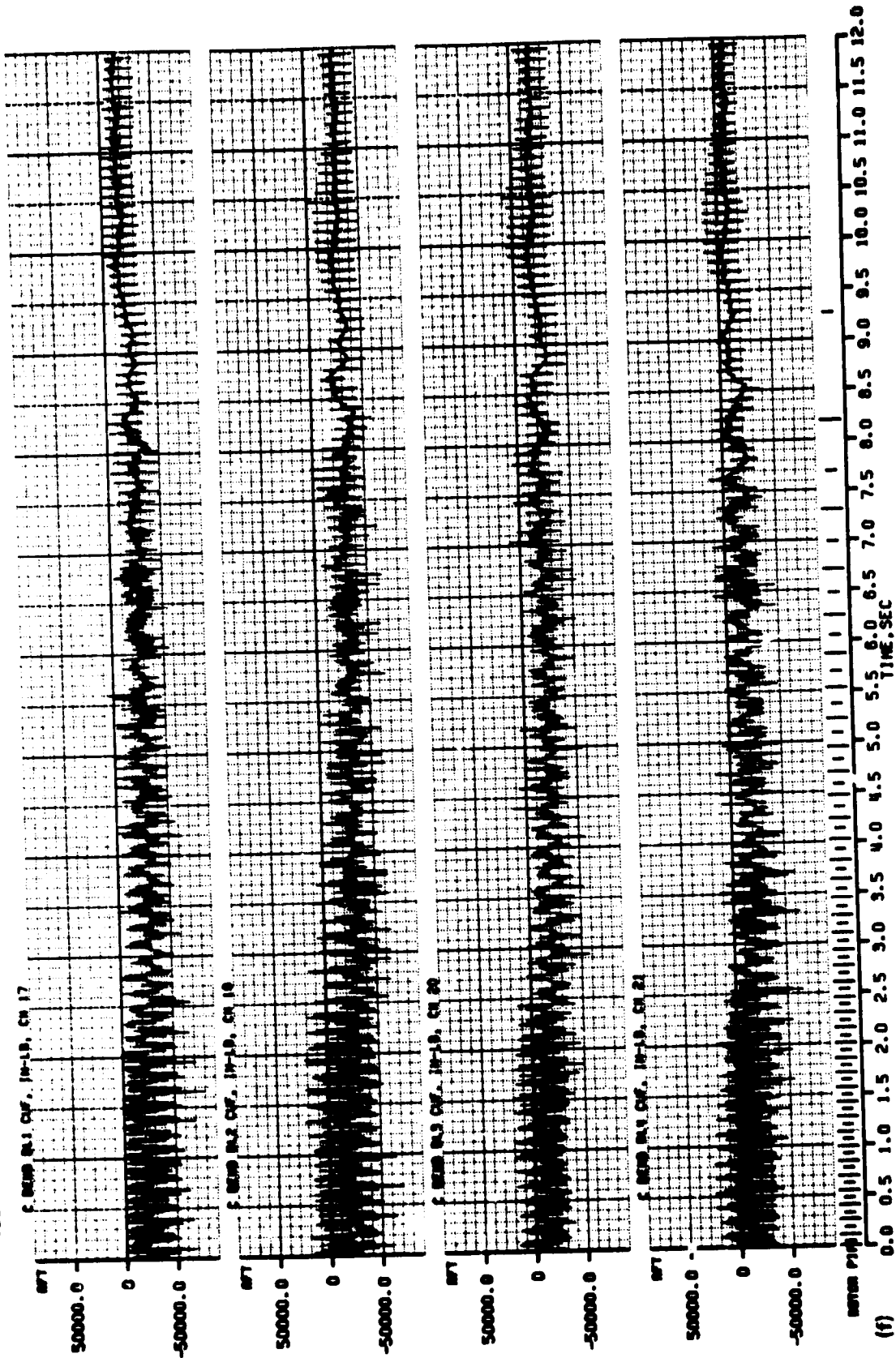
TEST 539 RUN 42 POINT 6



R-10-01

Figure 8.- Continued.

X-MING 40180 MT 180K CONV MODE STOP ALF=2 TMO=4 PP=6.9 X2P=
TEST 539 RUN #2 POINT 6



R-10-01

Figure 8.- Continued.

X-RING 40XDC WT 100X CONV MODE STOP ALF=2 THO--N PP-6.9 X2P=
 TEST 539 RUN 42 POINT 6

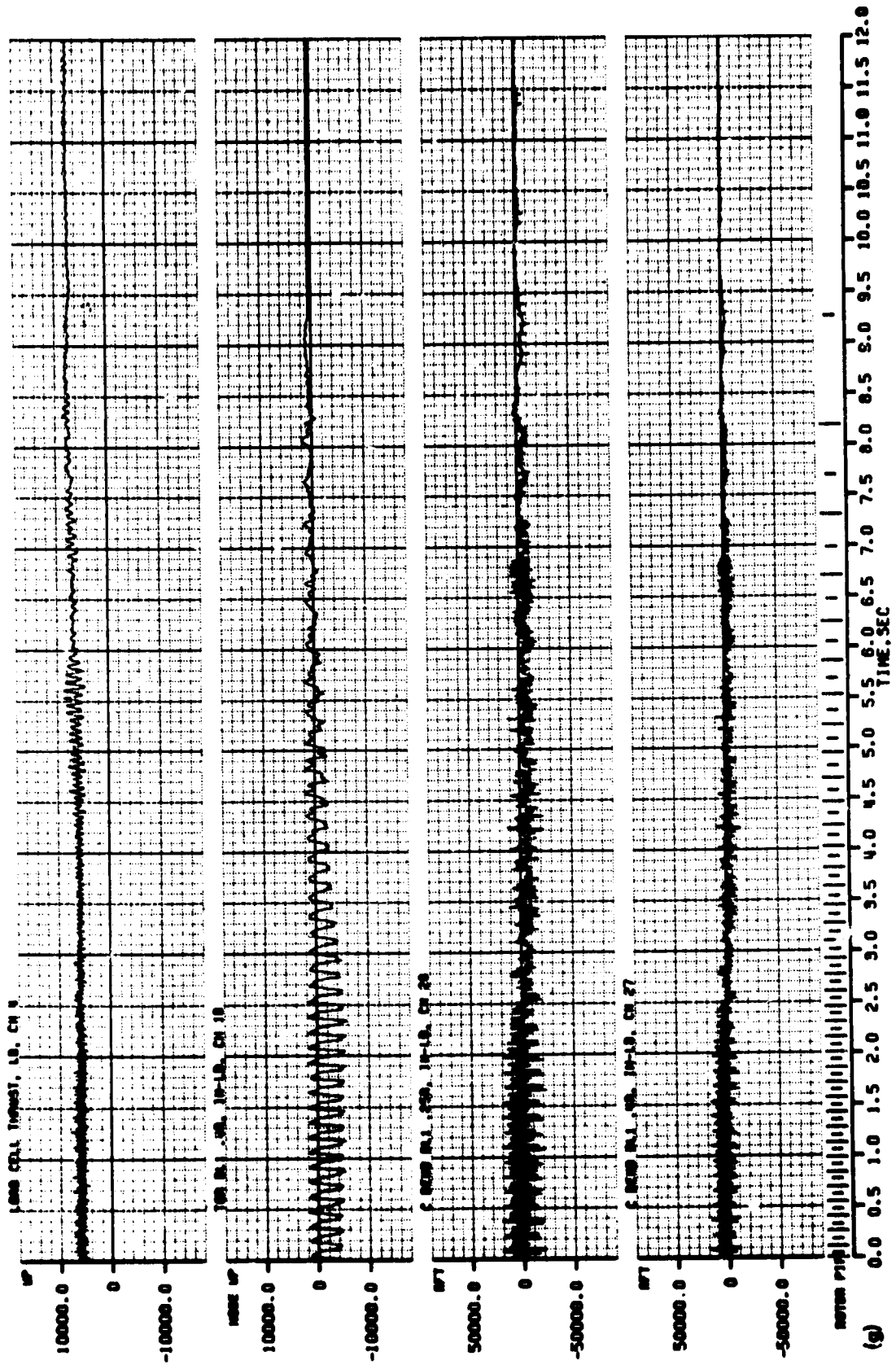


Figure 8.- Continued.

X-MING 40100 MT 180K CONV MODE STOP ALF-2 THD--4 PP-6.9 X2P-

TEST 538 RUN #2 POINT 6

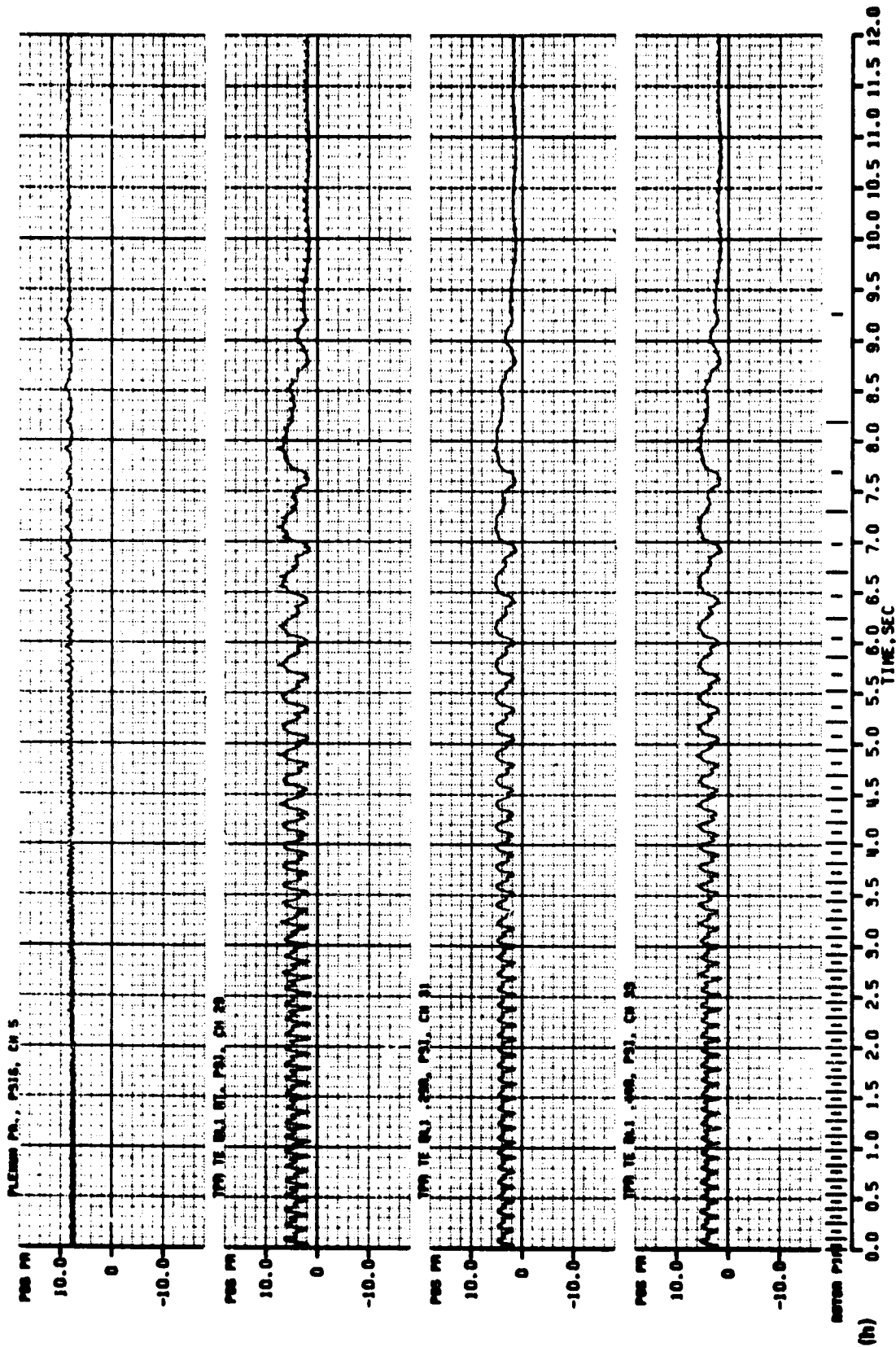


Figure 8.- Continued.

X-MING 40X60 MT 100X CONV MODE STOP ALF=2 THD=-4 PP=6.9 X2P=
 TEST 539 RUN 42 POINT 6

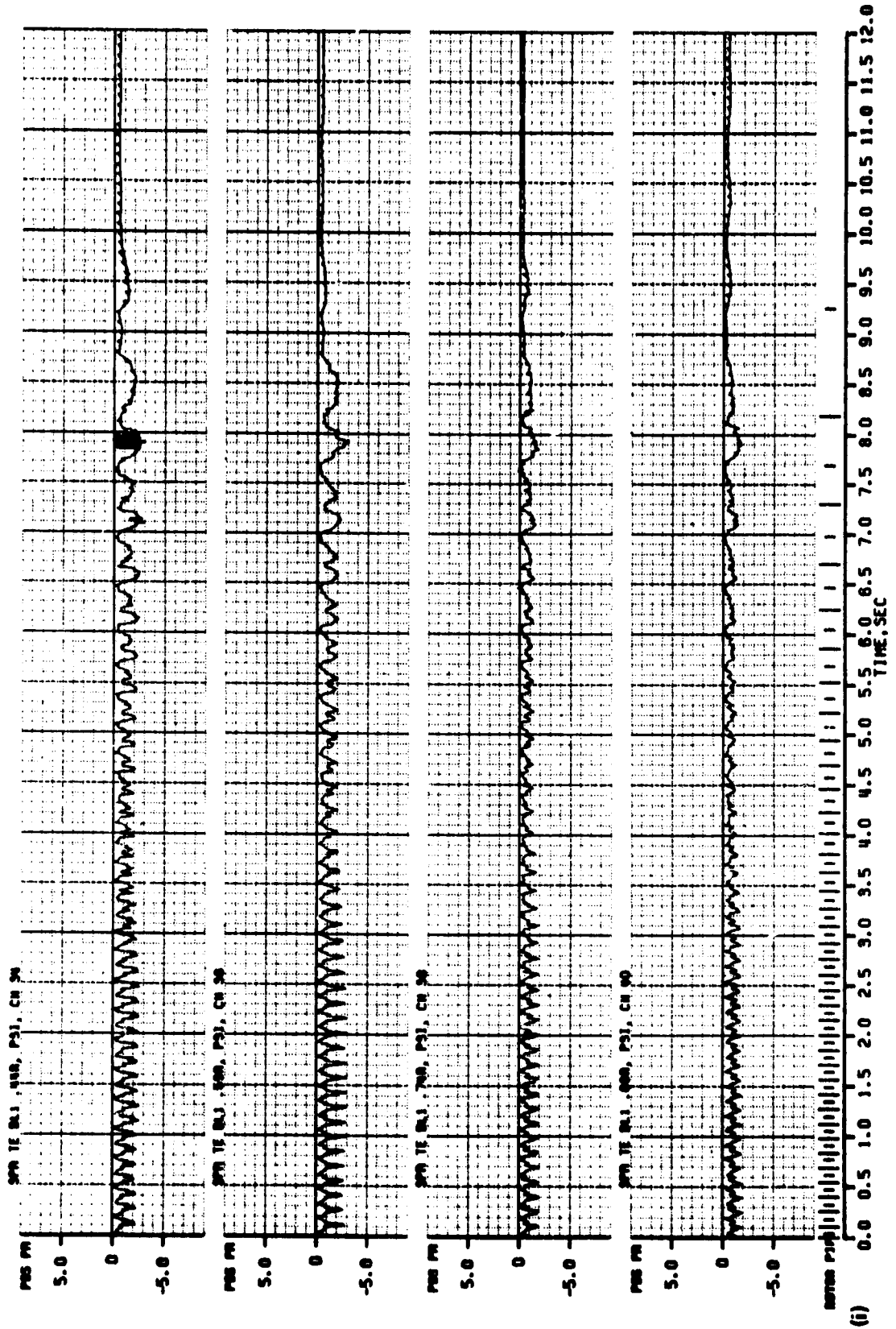


Figure 8.- Continued.

X-RINGS 00100 MT 180X CONV MODE STOP ALF=2 TMB--4 PP=6.9 XCP=
 -TEST 530 RUN 42 POINT 6

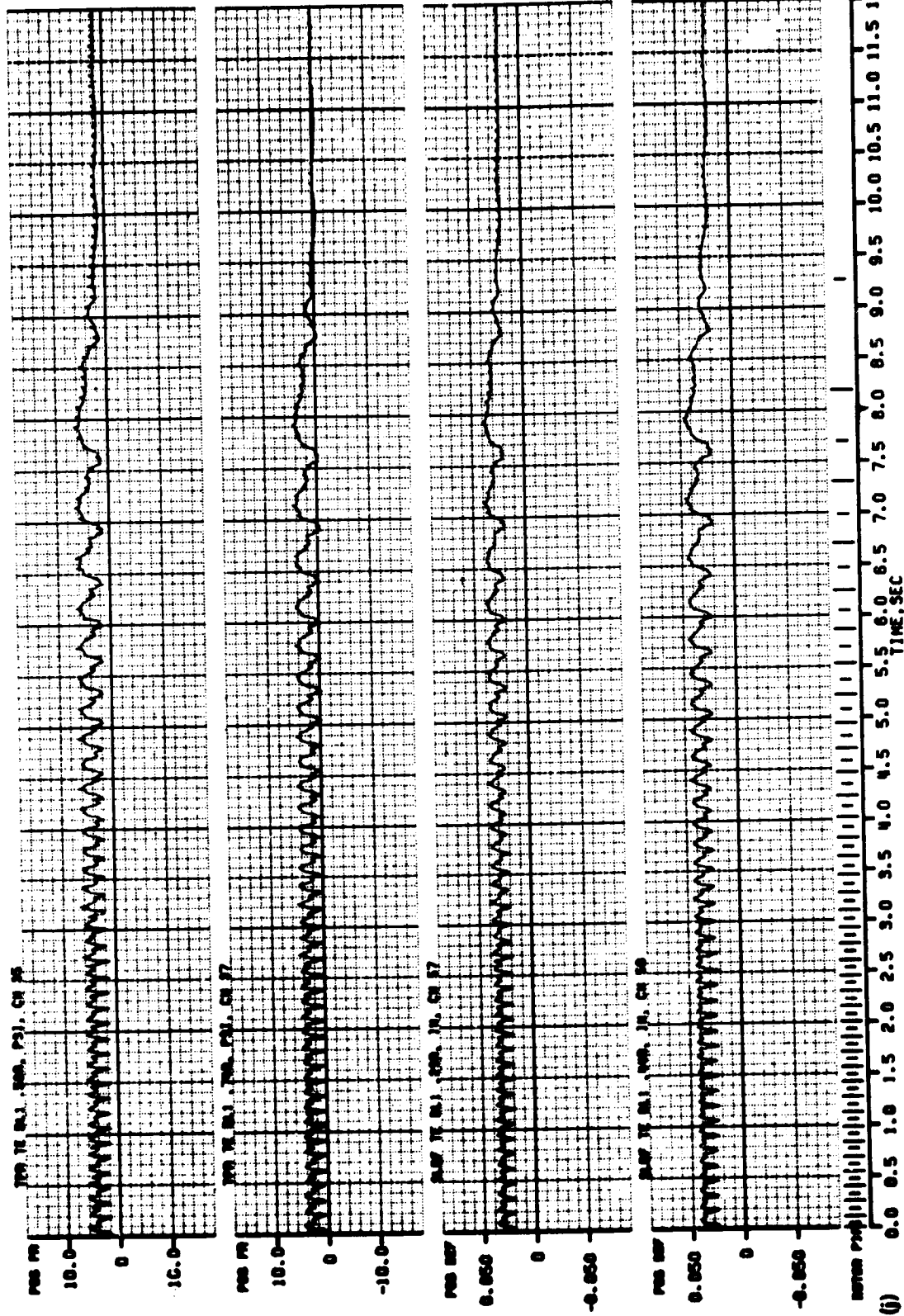


Figure 8.- Continued.

X-MING 401000 MT 180X CONV MODE STOP ALF=2 TIMO=4 PP=6.9 X2P=
 TEST 538 RUN 42 POINT 6

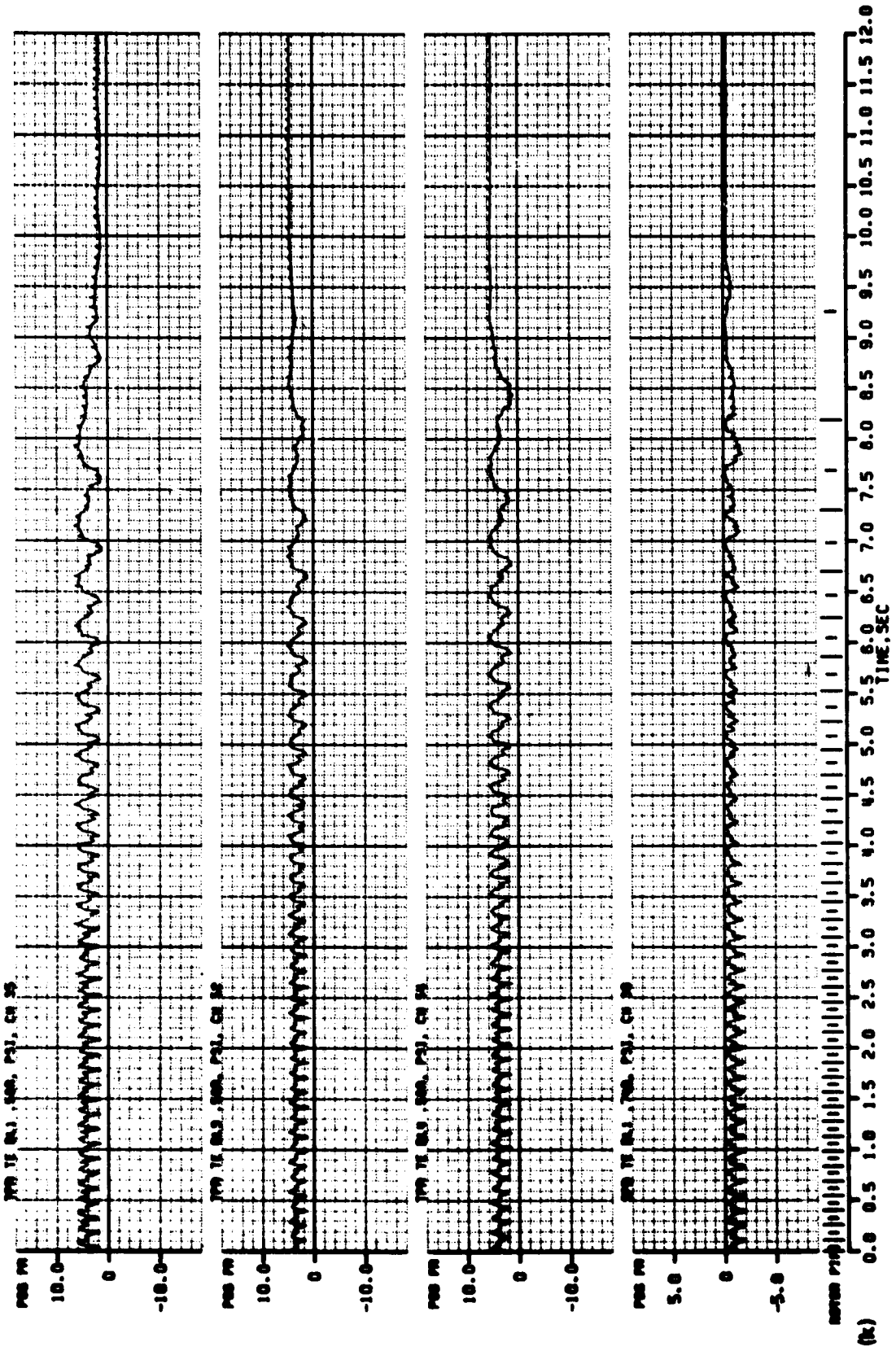


Figure 8.- Continued.

X-MING 40280 MT 100K CONV MODE STOP ALF-2 TH0--4 PP-6.9 IZP-

TEST 530 RUN 42 POINT 6

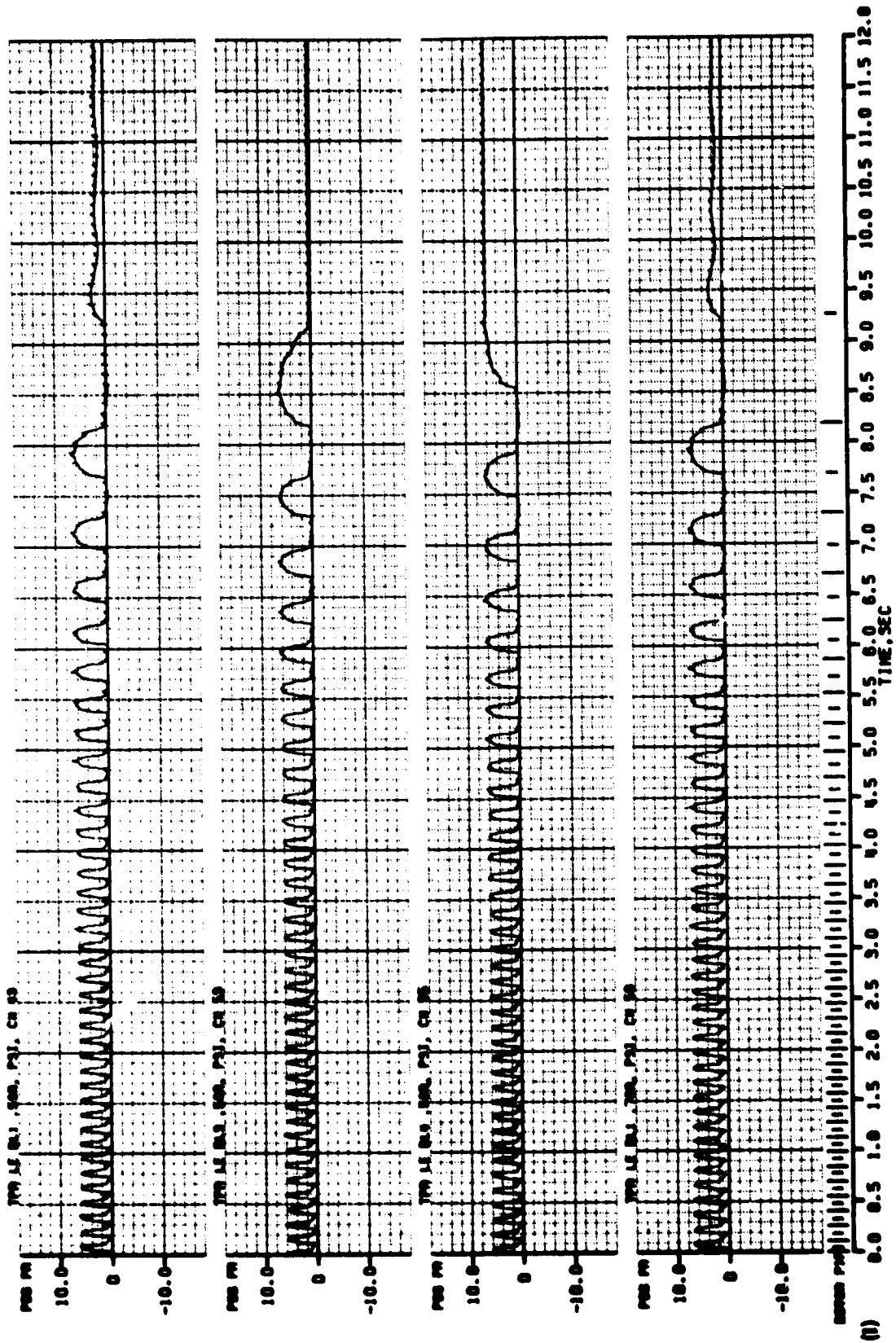
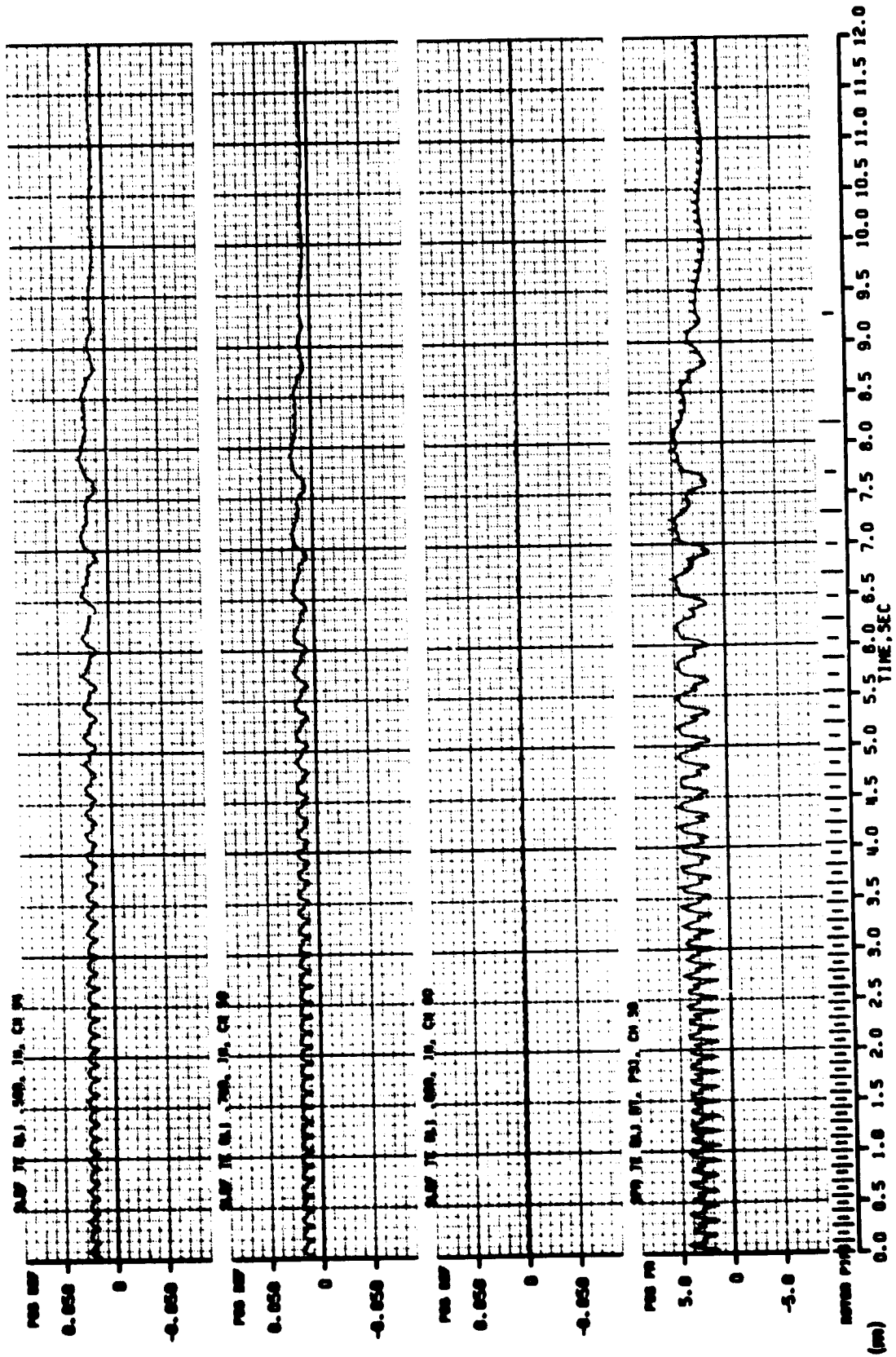


Figure 8.- Continued.

X-RING 60200 MT 180X CONV MODE STOP ALF=2 THD=-4 PP=6.9 X2P=

TEST 530 RUN 42 POINT 6



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Figure 8.- Concluded.

X-WING 00100 MT 100K CONV MODE START ALF-2 THO--4 PP-6 X2P--

TEST 530 RUN 42 POINT 7

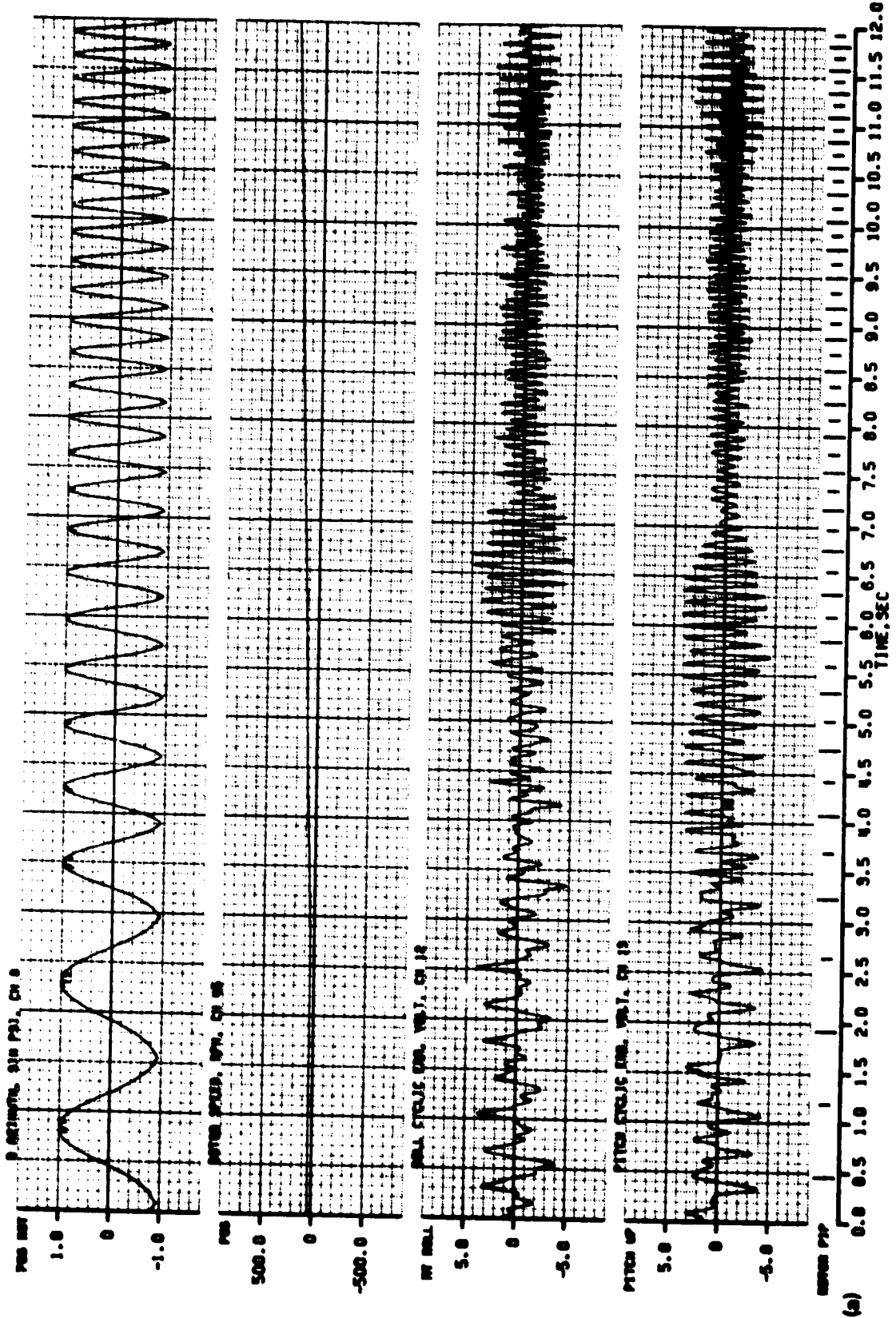
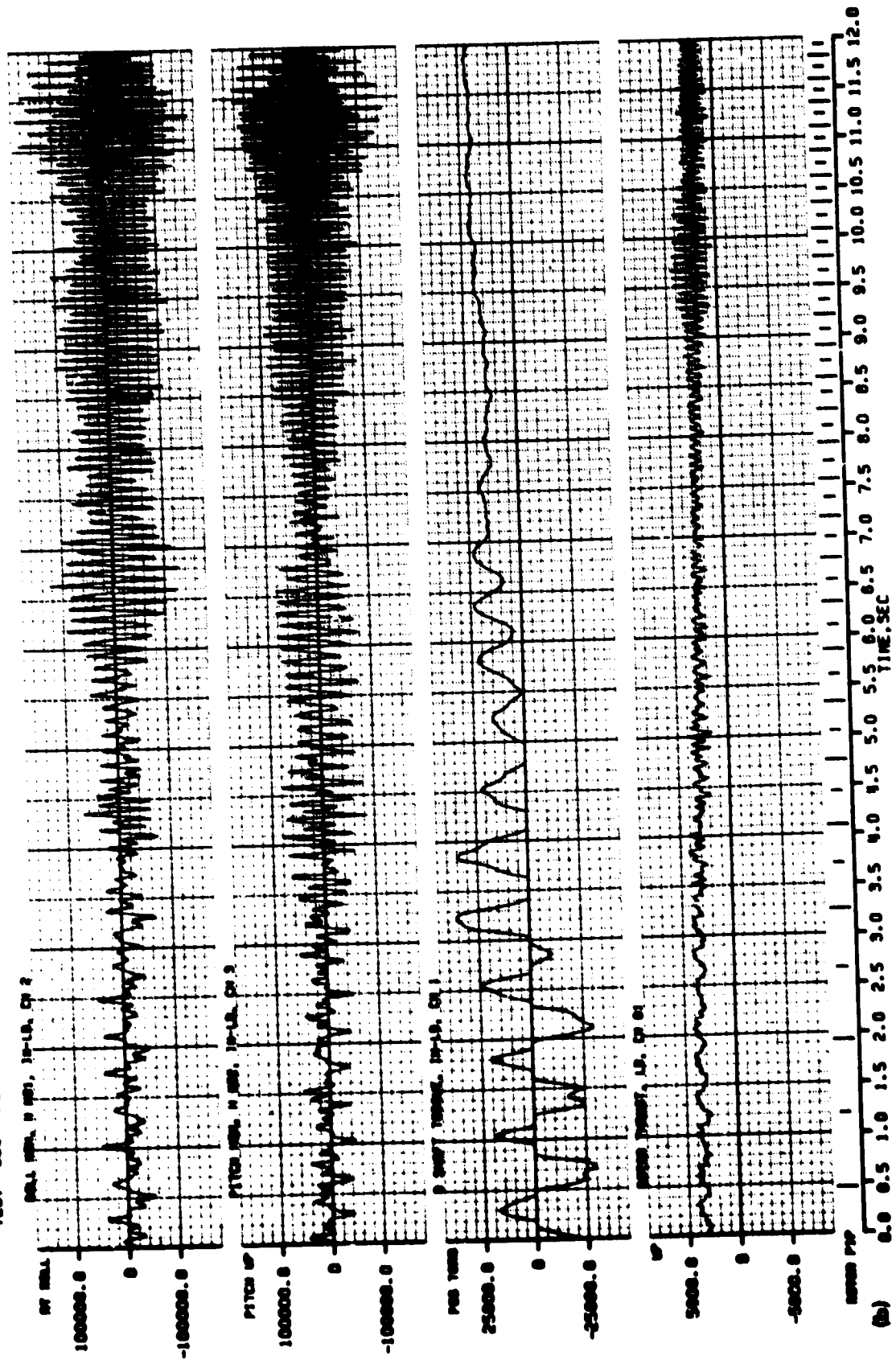


Figure 9.- Time history of run 42, data point 7, rotor transient from fixed-wing to rotary-wing mode.

X-MINS 40280 MT 180K CONV MODE START RLF-2 TH0--1 PP-6 X2P--

TEST 530 RUN 42 POINT 7



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Figure 9.- Continued.

X-RING 00100 MT 100X CONV MODE START ALF-2 TND--4 PP-6 X2P--

TEST 530 RUN 02 POINT 7

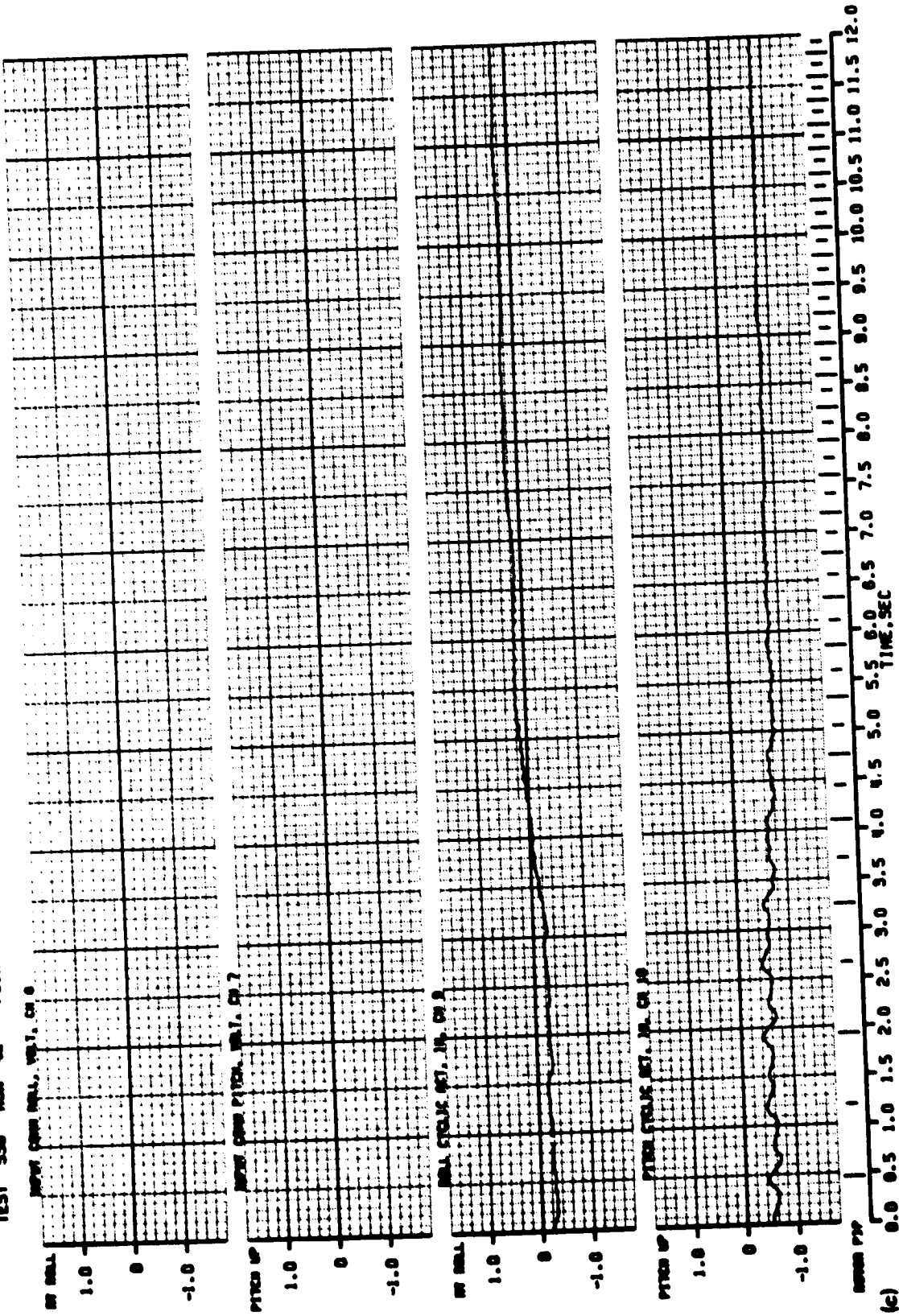
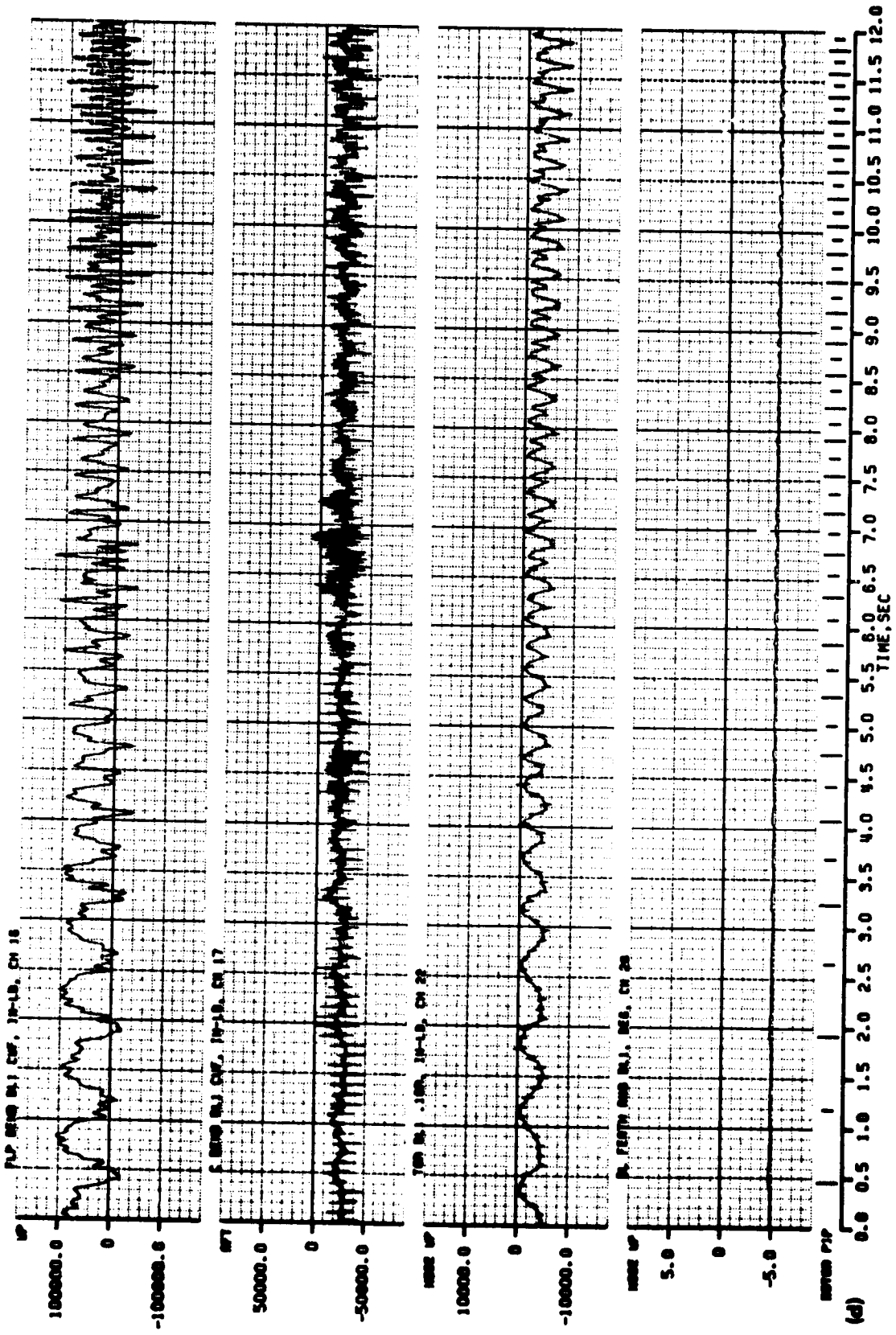


Figure 9.- Continued.

X-WING 40100 WT 1 BOX CONV MODE START ALF-2 THO--N PP-6 X2P--

TEST 538 RUN 42 POINT 7

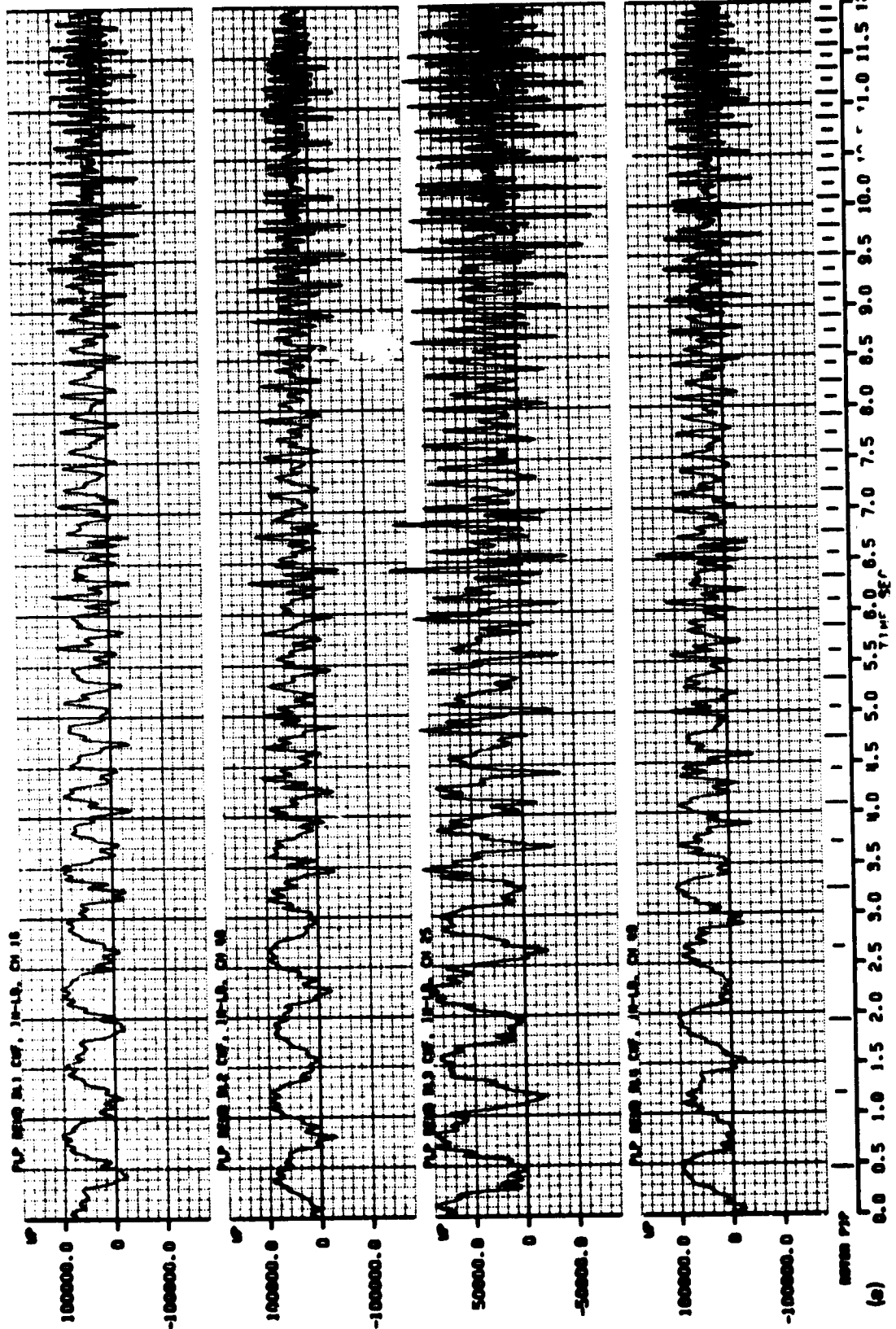


R-10-01

Figure 9.- Continued.

X-WING 60300 WT 180X CONV MODE START ALF=2 TH0=4 PP=6 X2P=-

TEST 530 RUN 42 POINT 7

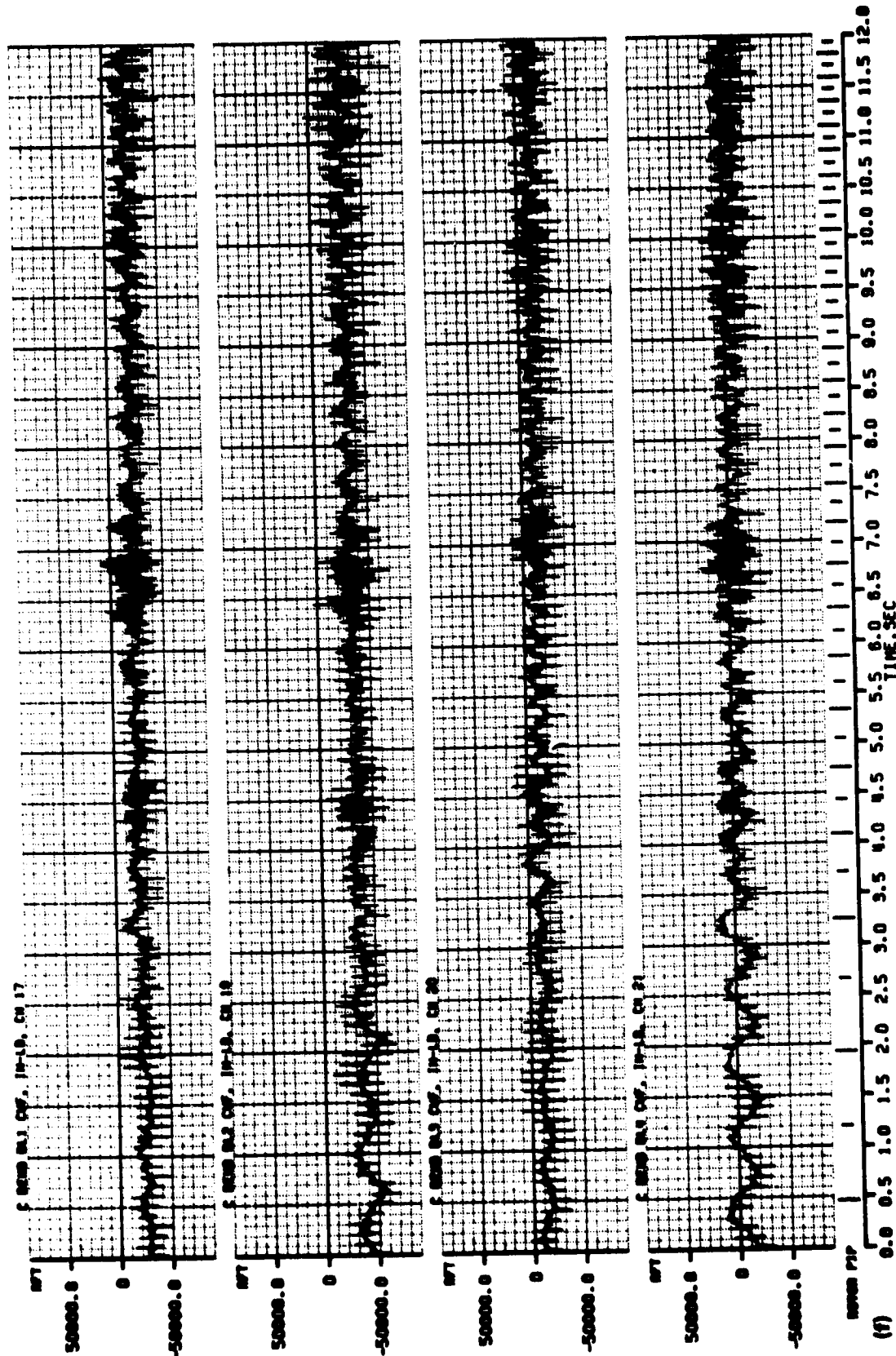


01-10-01

Figure 9.- Continued.

X-NING 40180 NT 180K CONV MODE START ALF=2 THD=4 PP=6 X2P=

TEST 538 RUN N2 POINT 7



8-18-81

Figure 9.- Continued.

X-MING 40160 MT 160K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-
 TEST 536 RUN N2 POINT 7

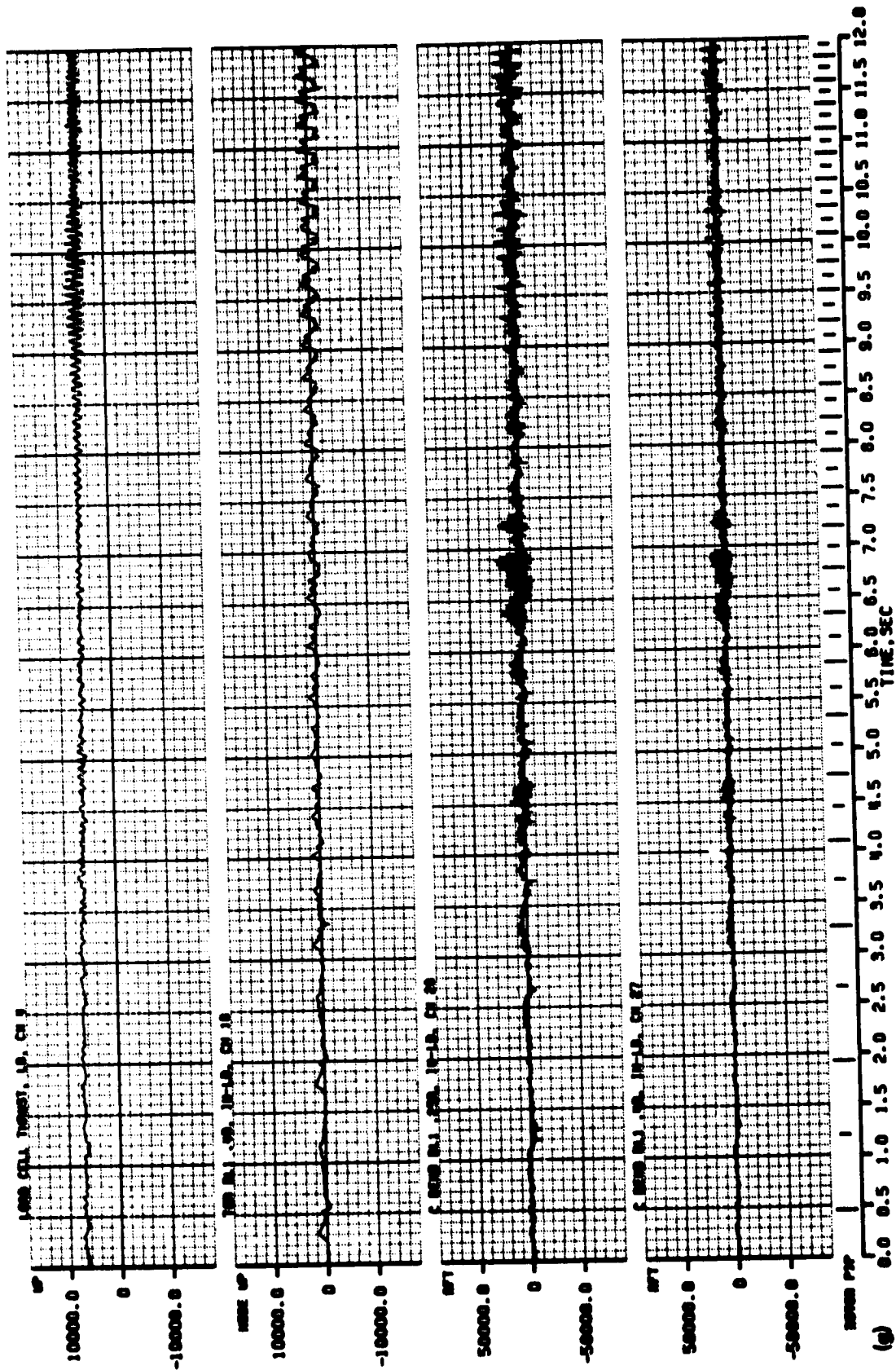


Figure 9.- Continued.

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X-MING 40160 MT 160K CONV MODE START ALF=2 TH0--4 PP=6 X2P--

TEST 538 RUN 42 POINT 7

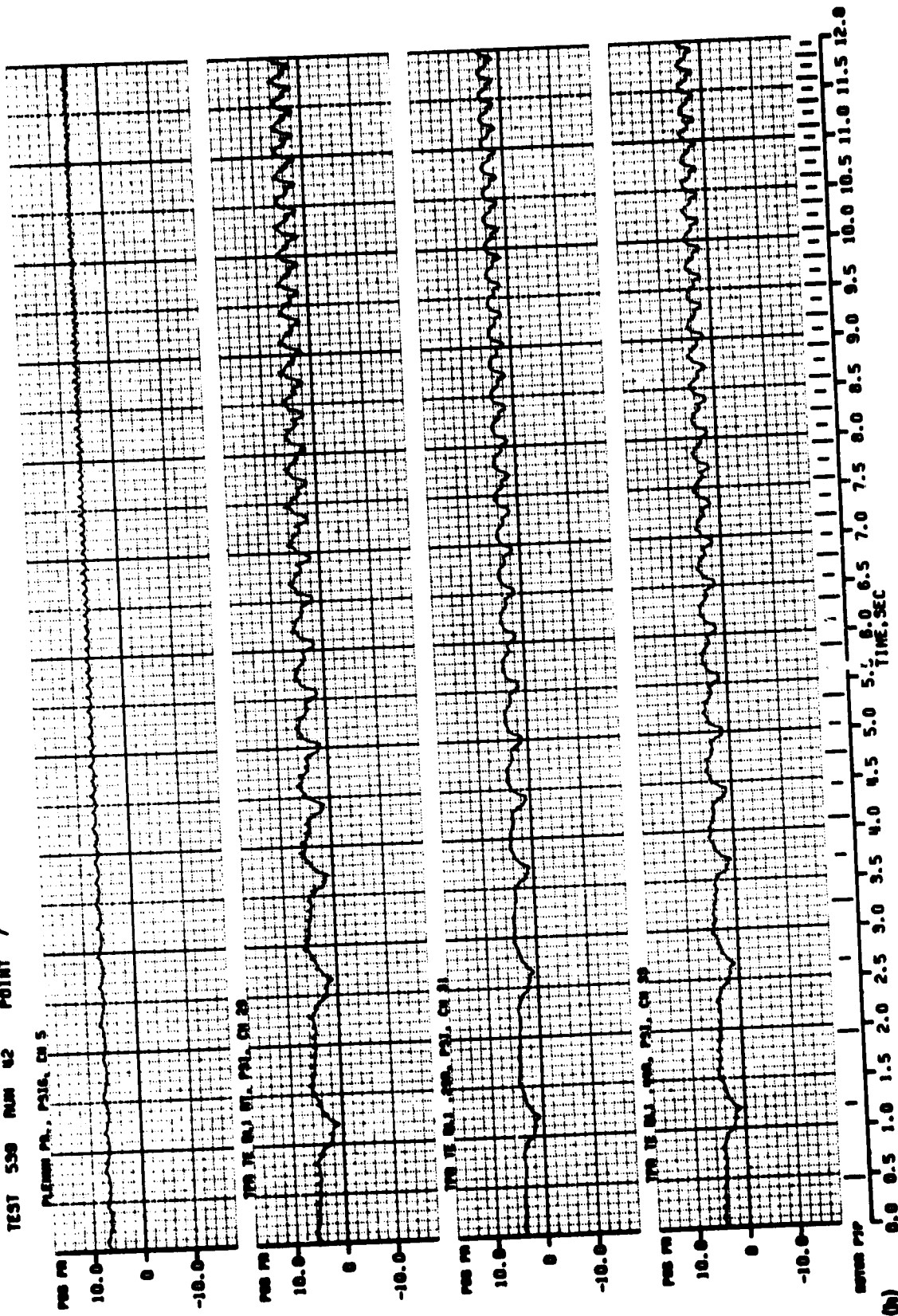
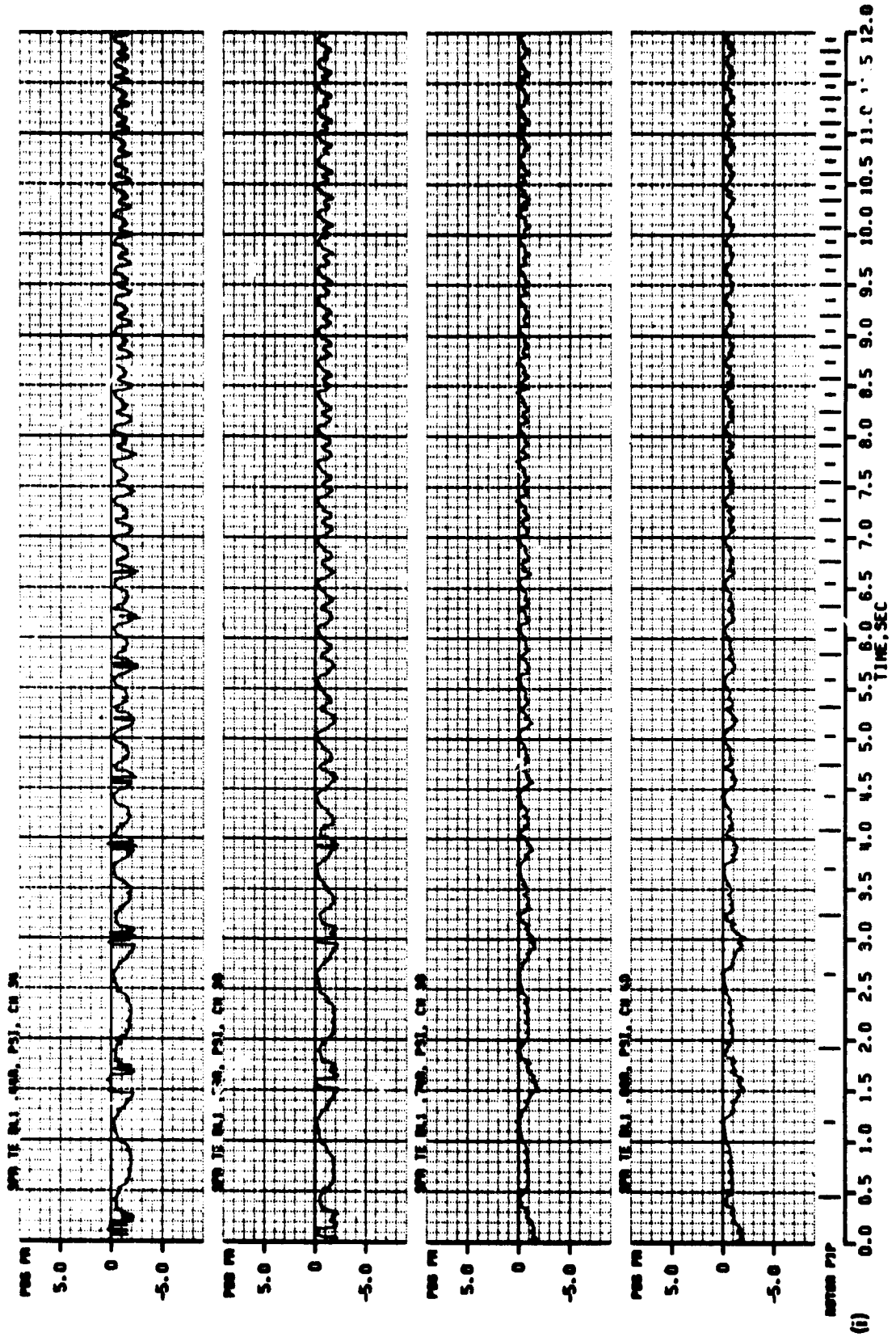


Figure 9.- Continued.

X-MING 40X80 MT 180K CONV MODE START ALF=2 TMO=-N PP-6 X2P=-

TEST 539 RUN 42 POINT 7



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Figure 9.- Continued.

X-MING 40180 MT 180K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-

TEST 530 RUN 42 POINT 7

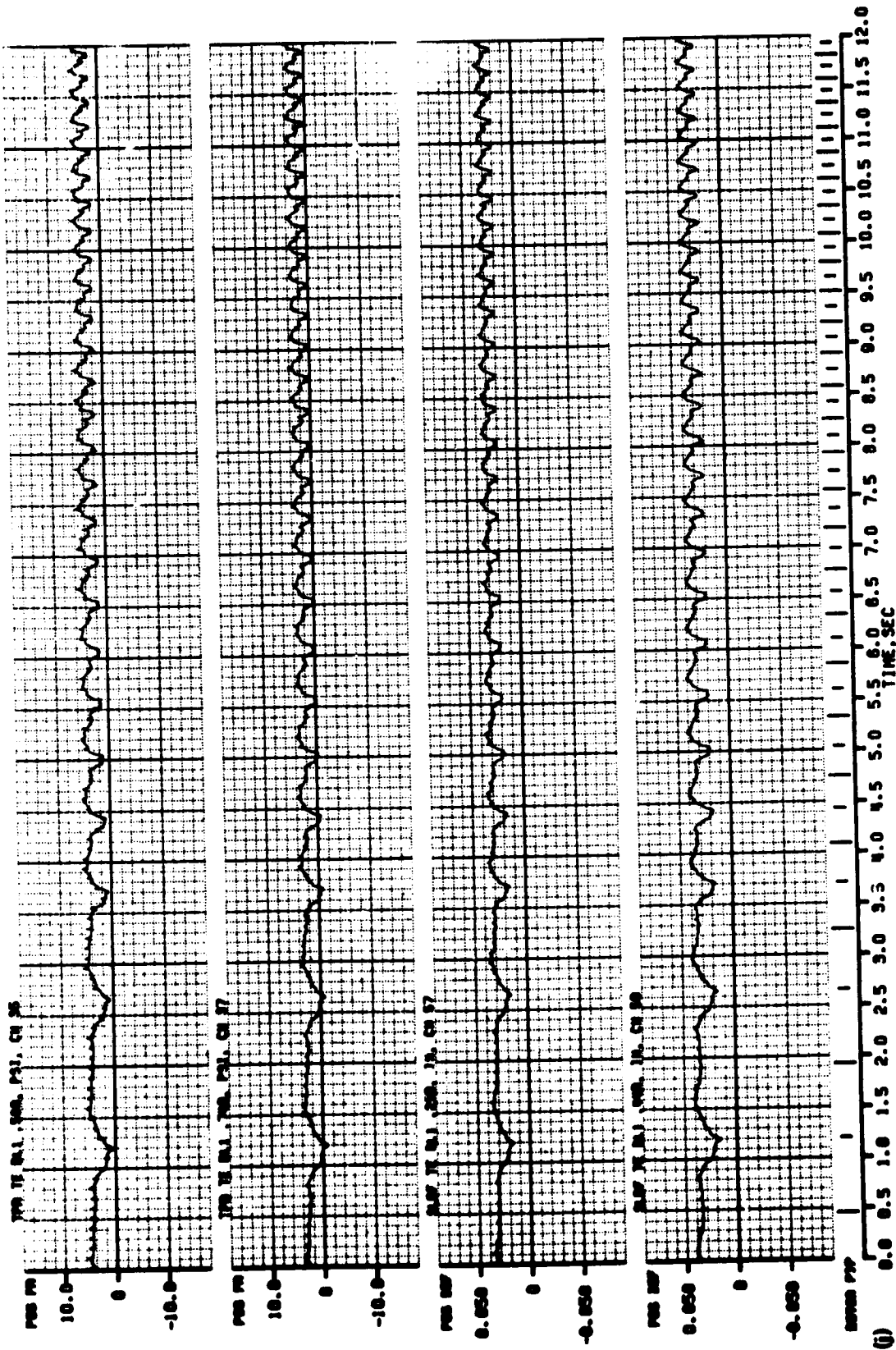


Figure 9.- Continued.

X-MING 40160 MT 180X CONV MODE START ALF=2 TH0=-1 PP=6 X2P=-

TEST 539 RUN N2 POINT 7

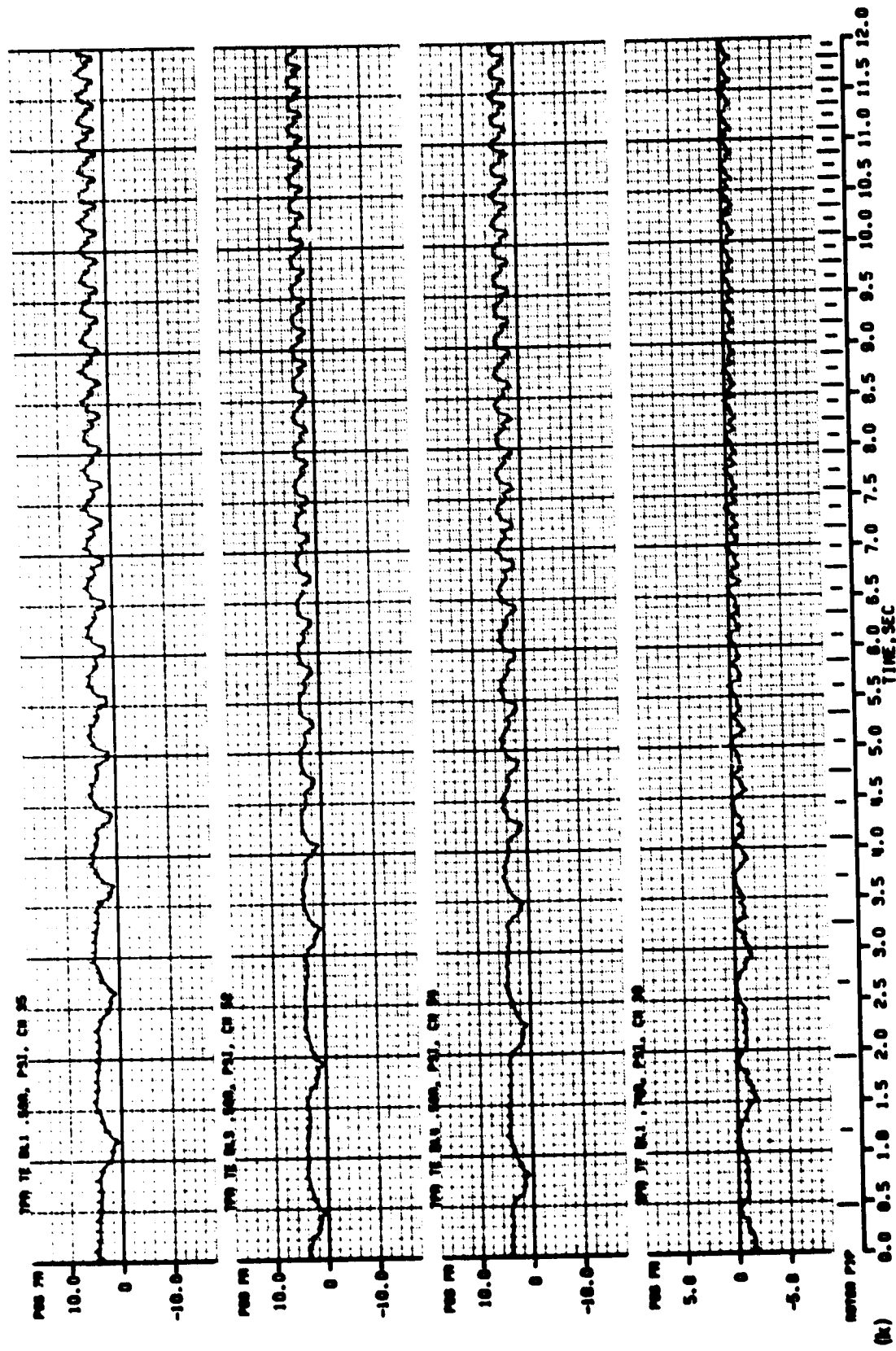


Figure 9.- Continued.

X-MING 60380 MT 180K CONV MODE START ALF=2 TH0--4 PP=6 X2P--

TEST 536 RUN 42 POINT 7

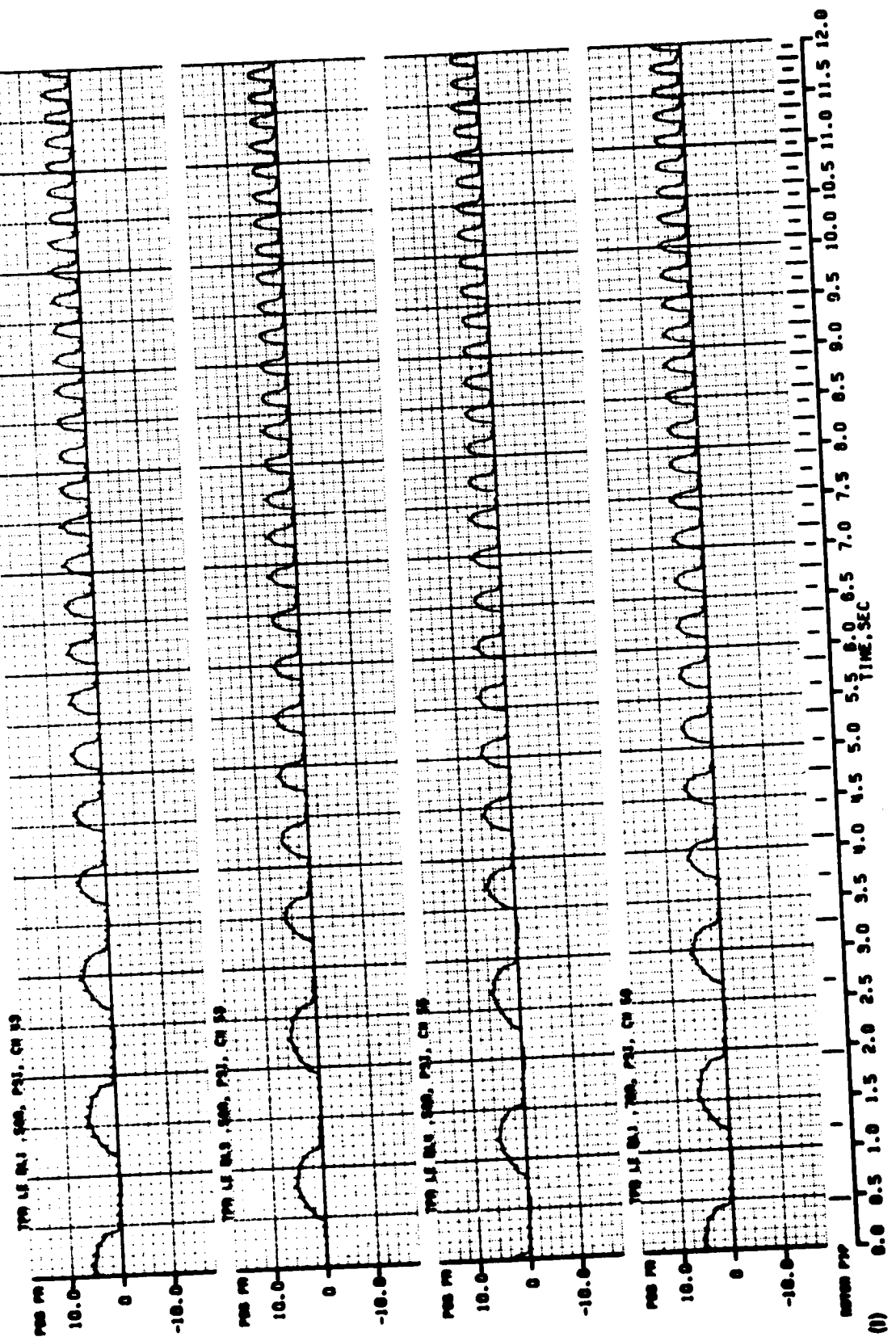


Figure 9.- Continued.

X-RING W0200 MT 100X CONV MODE STANT ALF-2 TH0--4 PP-8 X2P--
 TEST 530 RUN 42 POINT 7

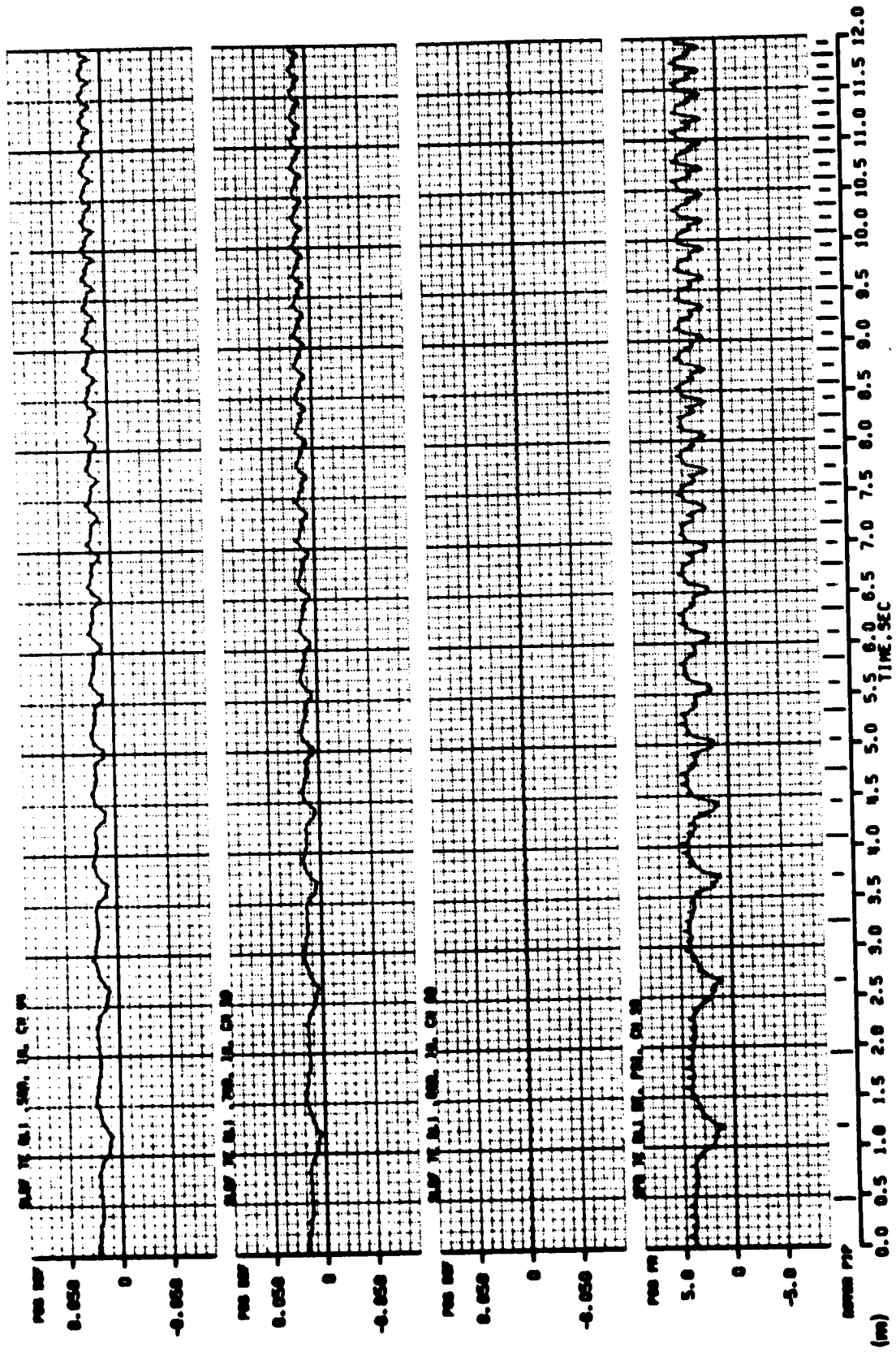


Figure 9.- Concluded.

X-NING 40280 NT 100X CONV MODE STOP ALF=2 TH0=-5 PP=7 X2P=-1

TEST 530 RUN 42 POINT 8

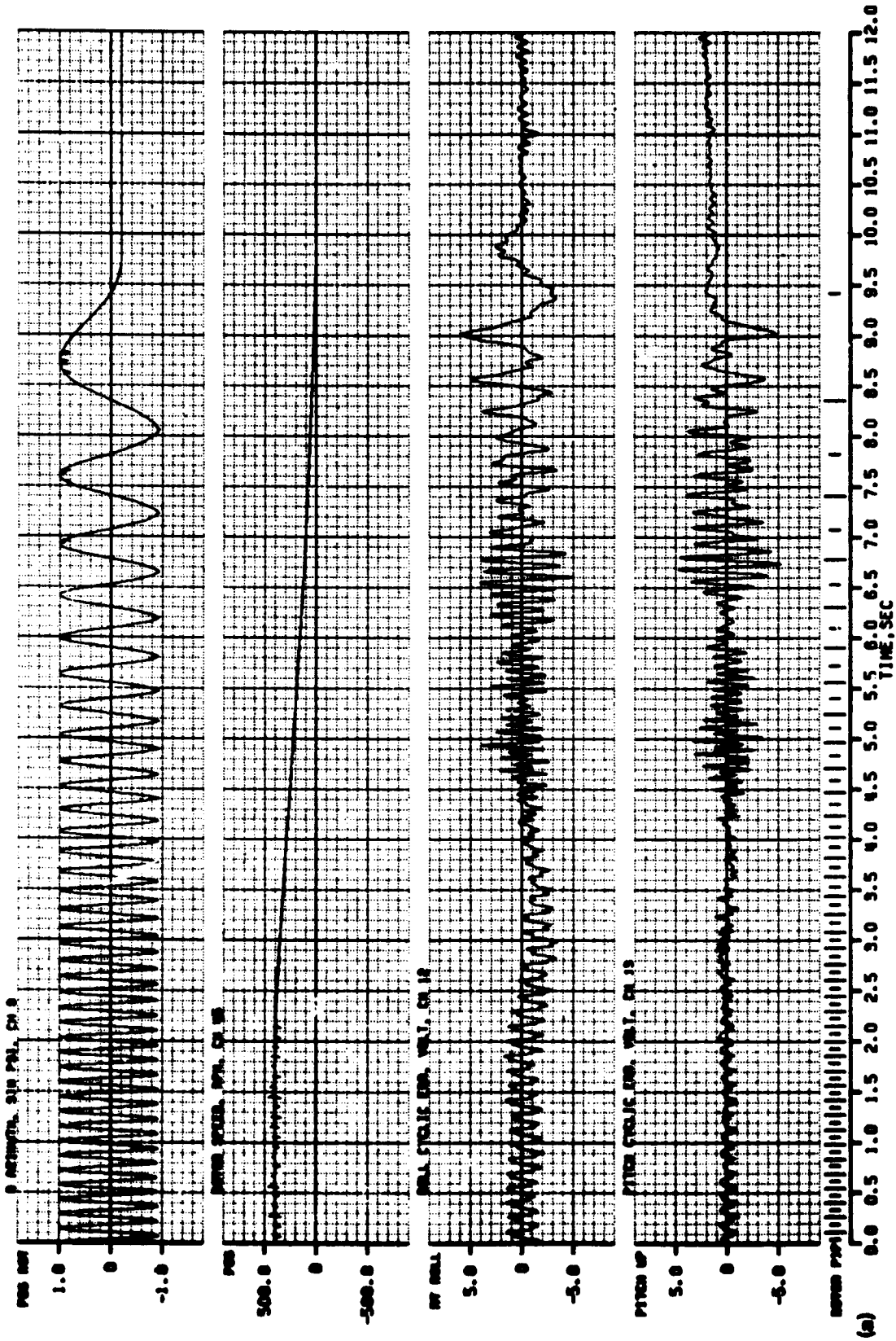
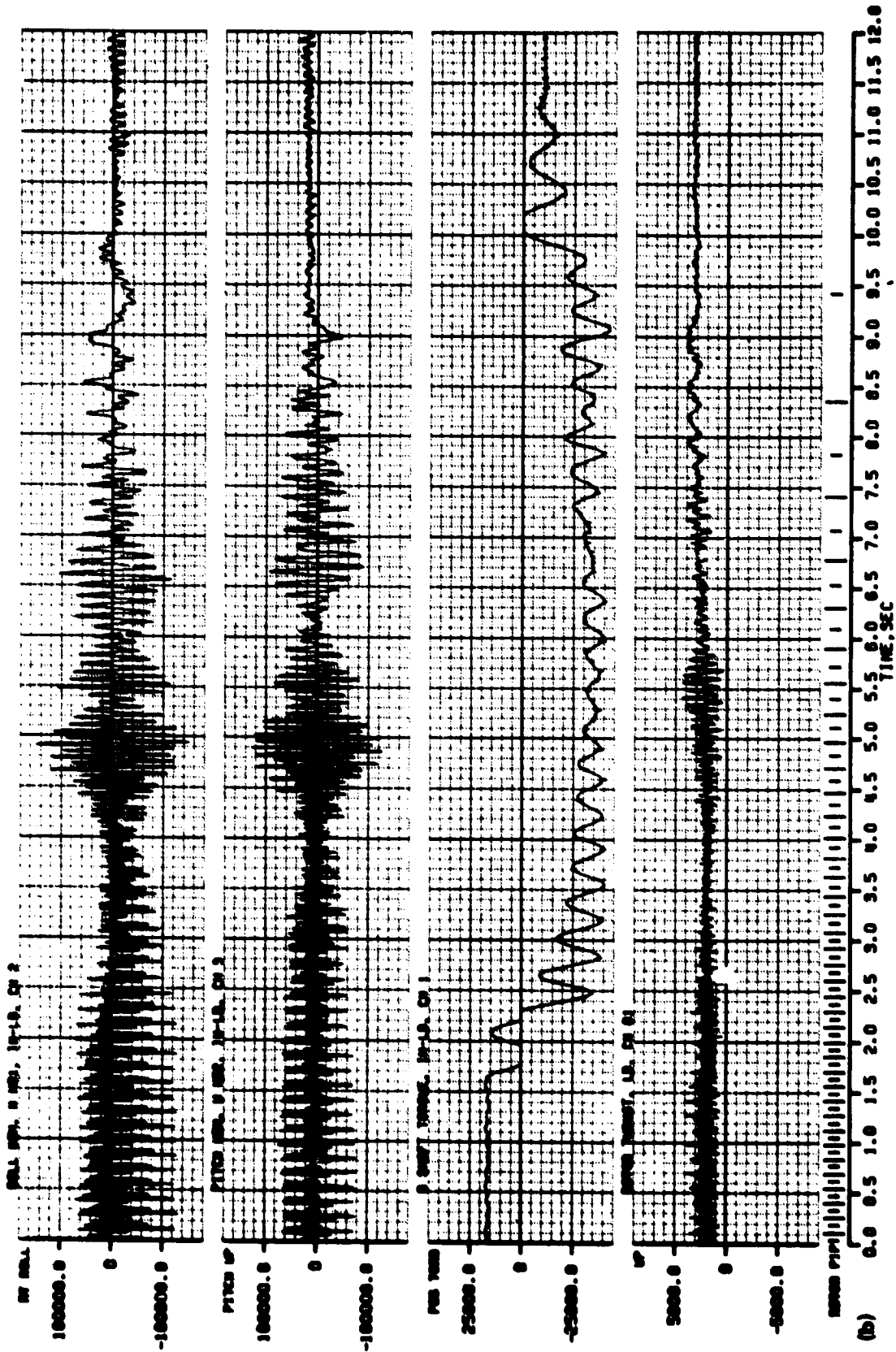


Figure 10.- Time history of run 42, data point 8, rotor transient from rotary-wing to fixed-wing model.

E-WING W0160 NT 100K CONV MADE STOP ALF-2 TMO-5 PP=7 X2P=-1

TEST 530 RUN W2 POINT 8



E-10-01

Figure 10.- Continued.

X-WING 40000 MT 100K CONV MODE STOP ALF=2 TMD=5 PP=7 X2P=-1

TEST 530 RUN 42 POINT 8

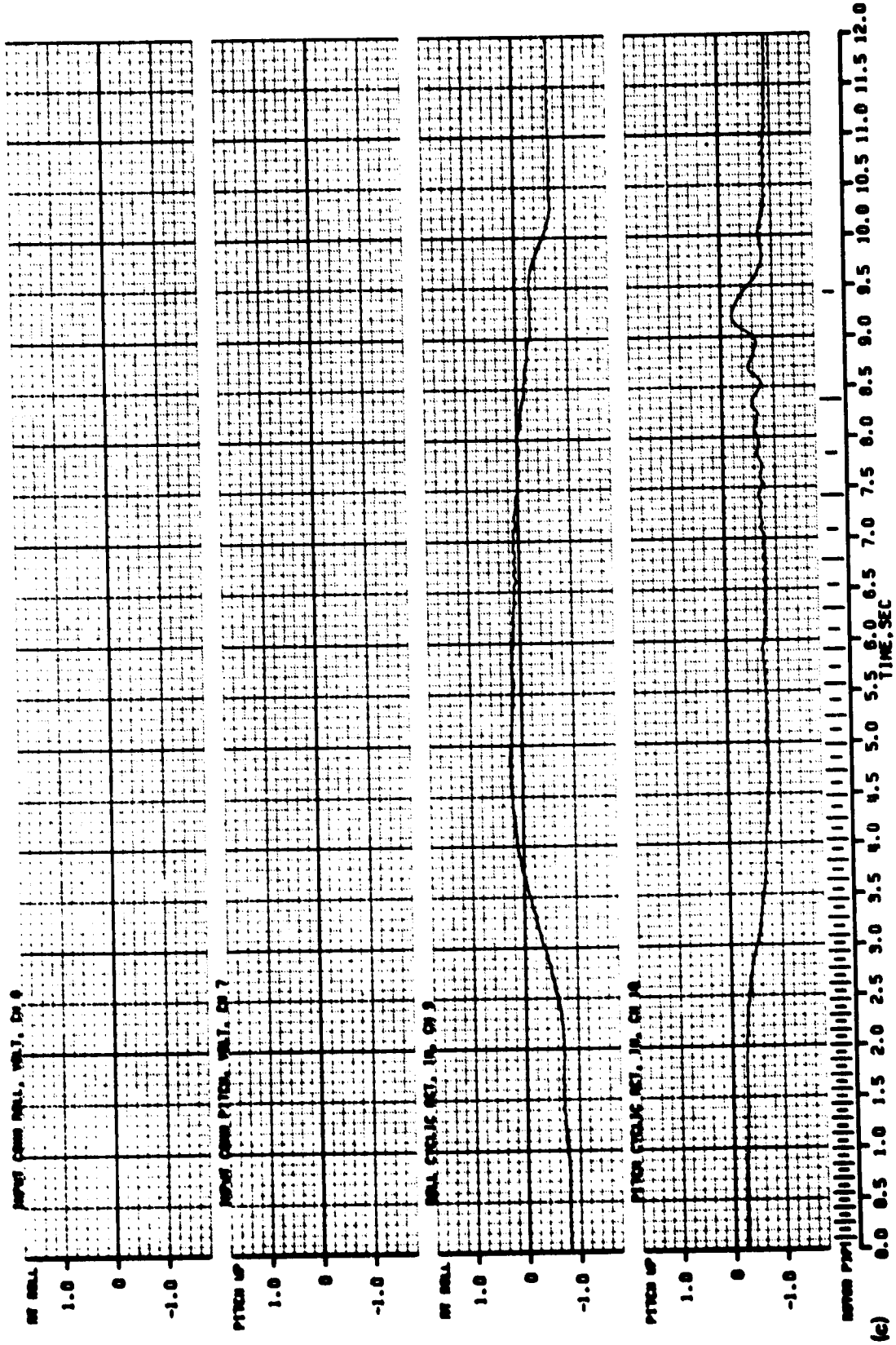


Figure 10.- Continued.

X-RING 40100 WT 100X CONV MODE STOP ALF=2 TH0=-5 PP=7 X2P=-1

TEST 530 RUN 42 POINT 0

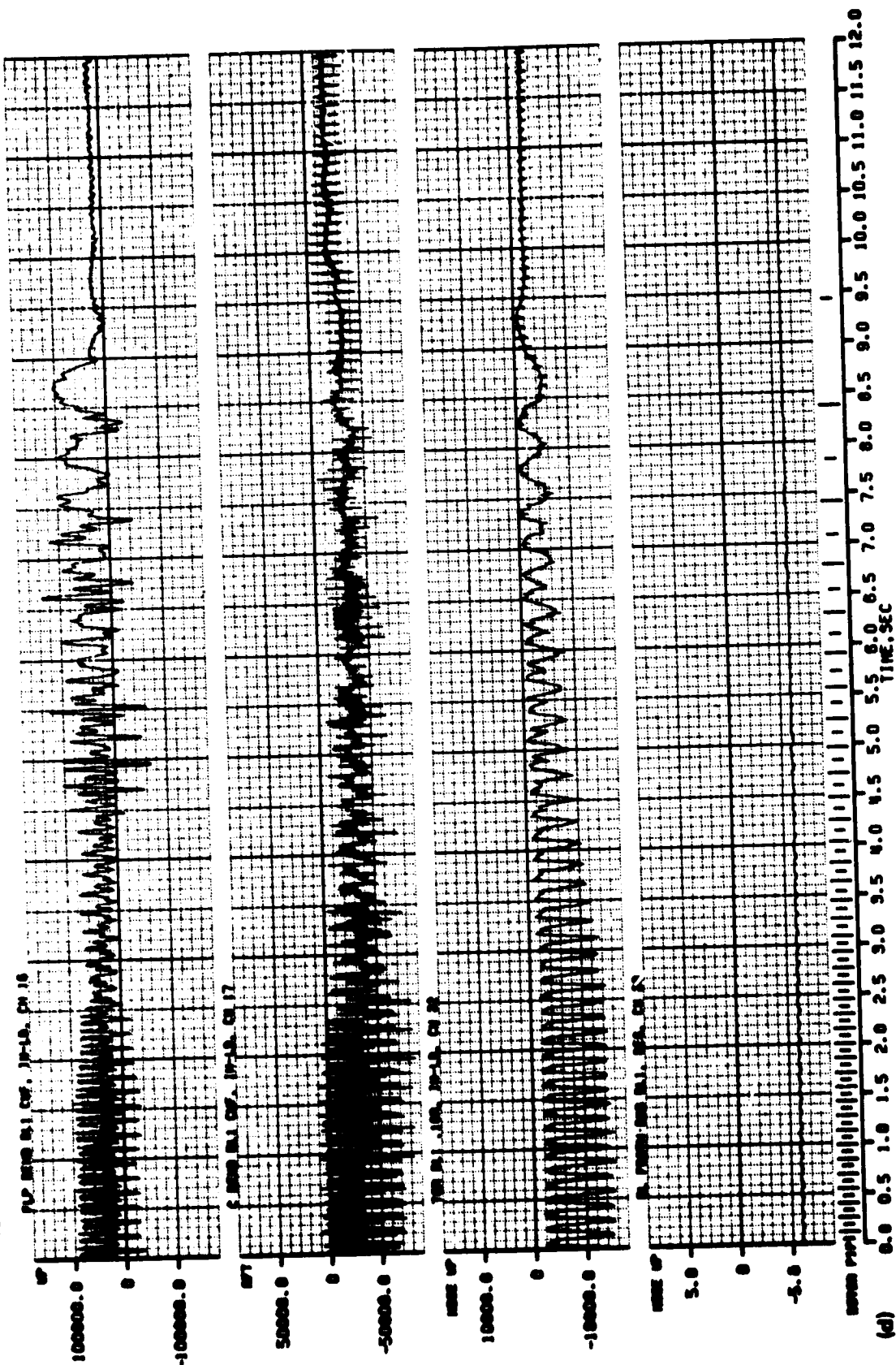
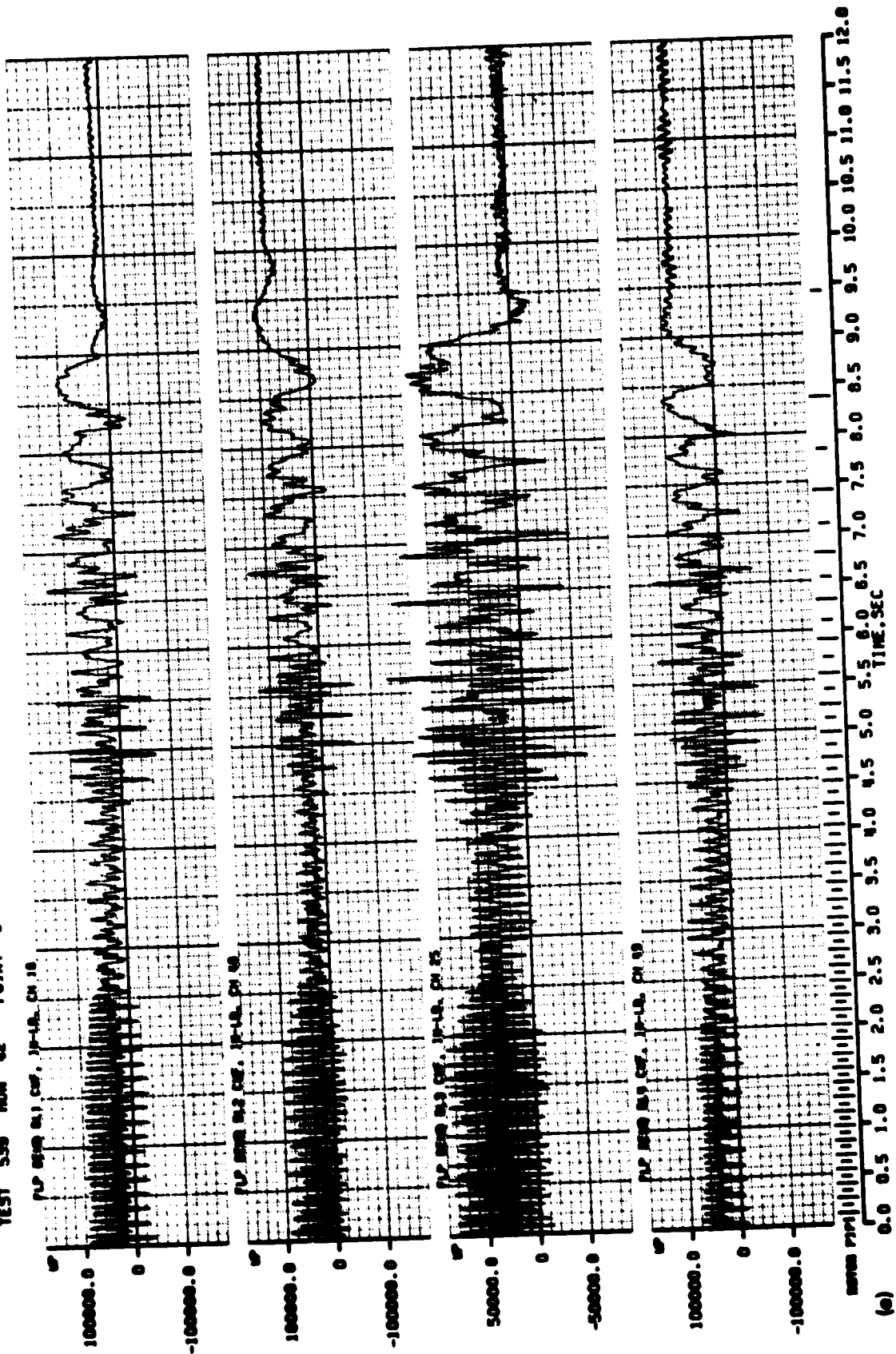


Figure 10.- Continued.

X-MING 40180 MT 180K CONV MODE STOP ALF=2 TH0=-5 PP=7 X2P=-1

TEST 538 RUN N2 POINT 8



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Figure 10.- Continued.

X-MING 40760 MT 180X CONV MODE STOP ALF-2 TH0--5 PP=7 X2P--1

TEST 539 RUN 42 POINT 8

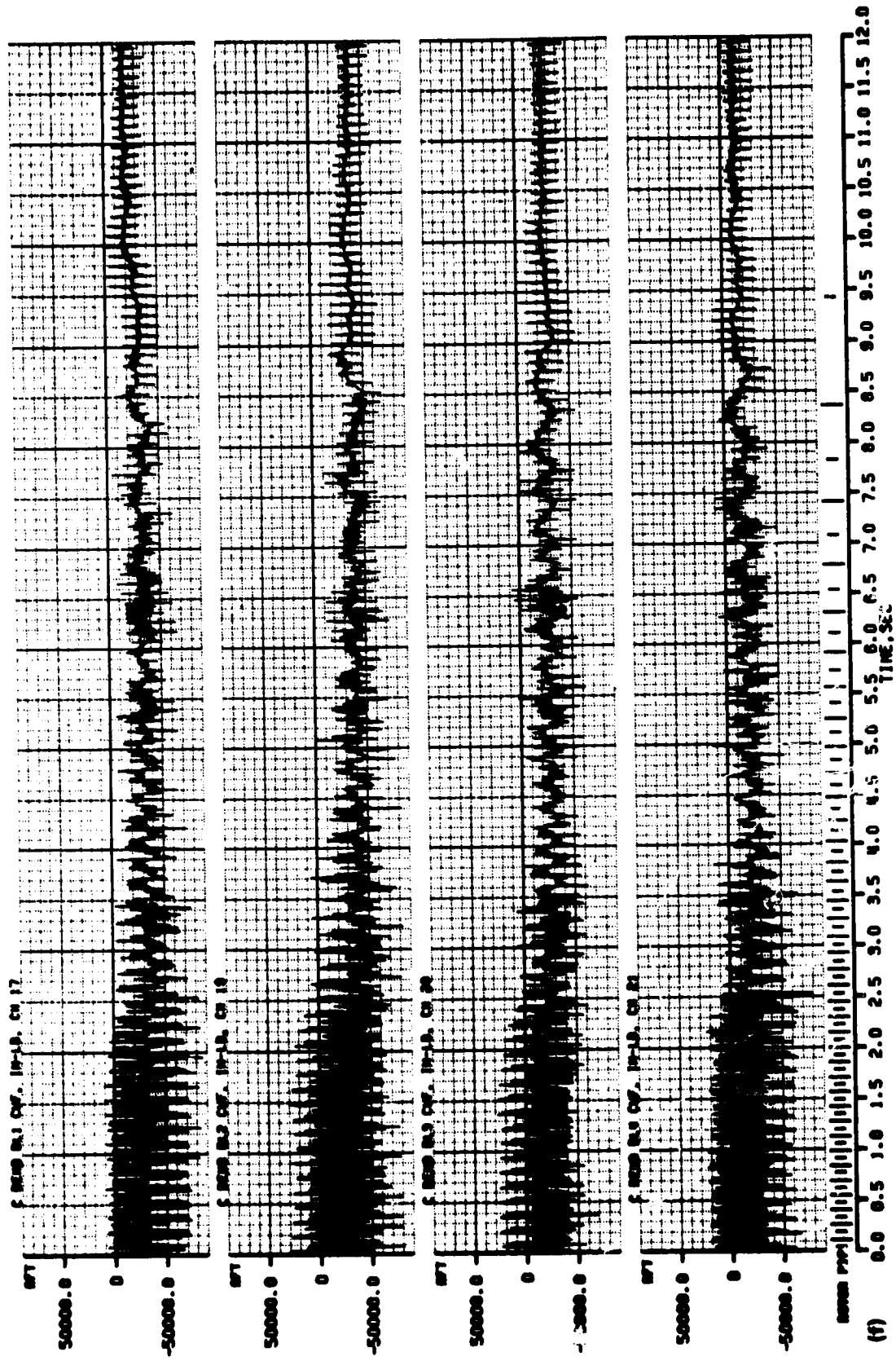
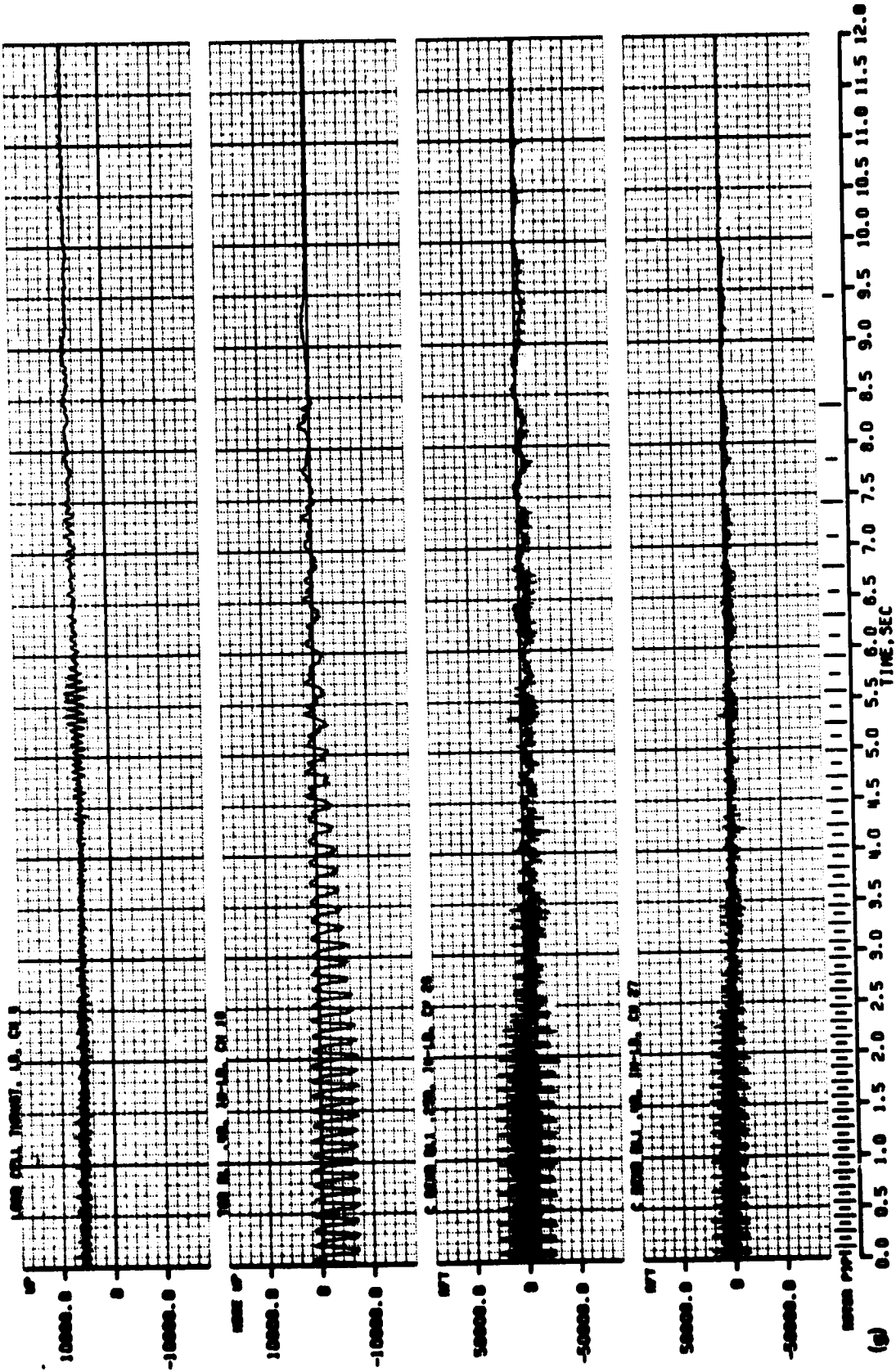


Figure 10.- Continued.

X-MING 40160 MT 180X CONV MODE STOP ALF-2 THO--5 PP=7 X2P=-1

TEST 538 RUN N2 POINT 8



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Figure 10.- Continued.

X-RING 40180 WT 180X CONV MODE STOP ALF-2 TH0--5 PP-7 X2P--1

TEST 550 RUN 42 POINT 8

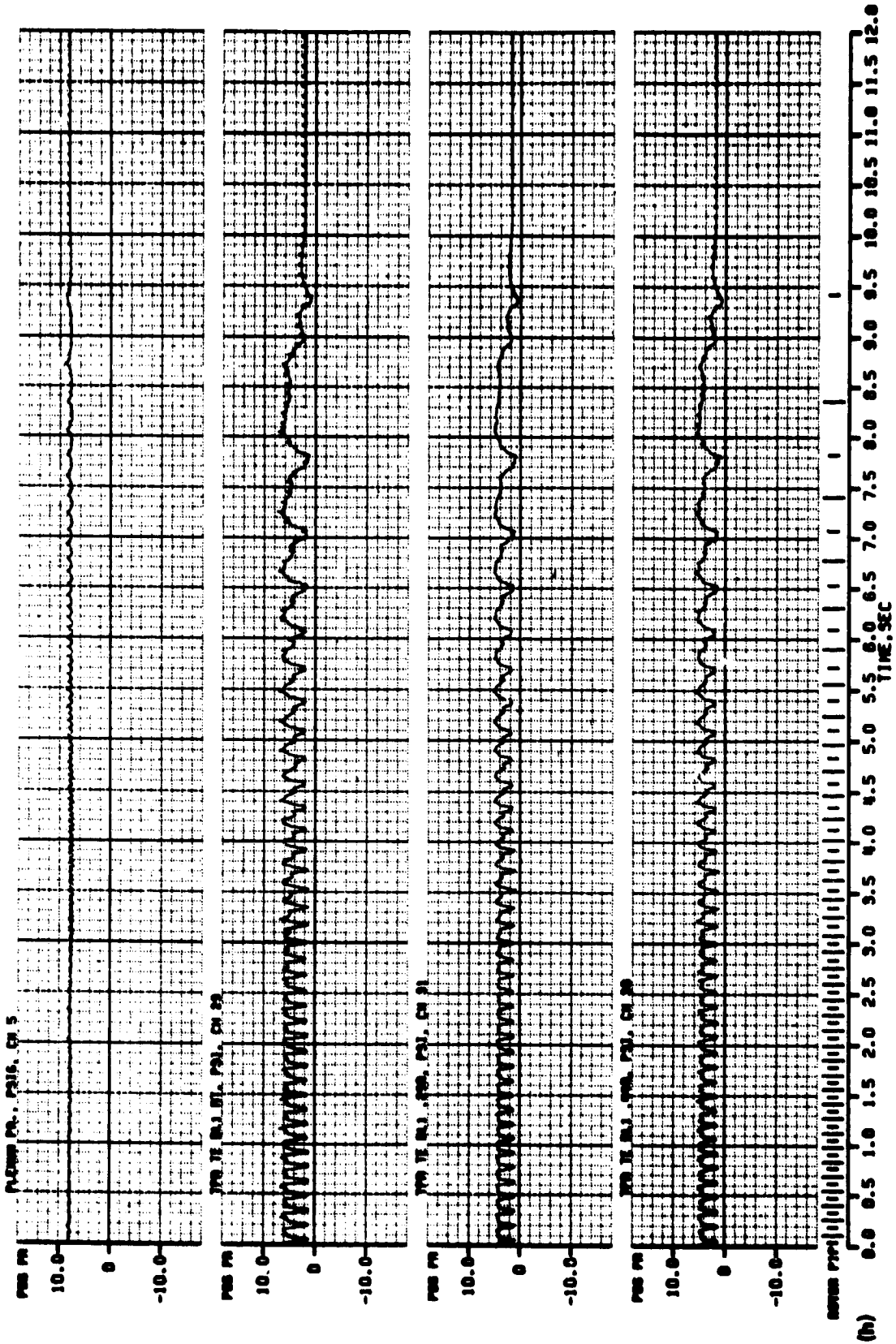
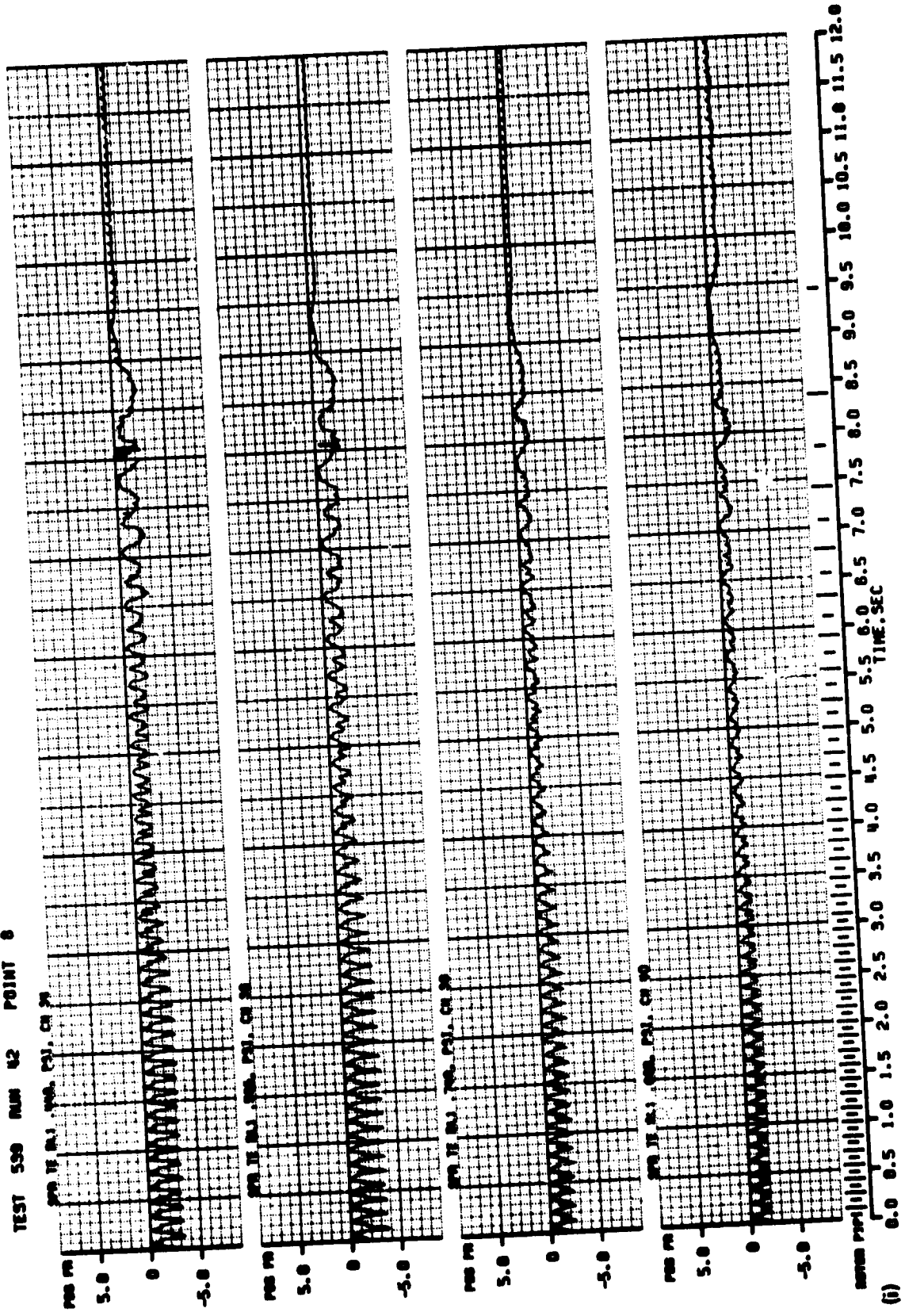


Figure 10.- Continued.

X-RINGS ROTATED MT 180K CONV MODE STOP ALF=2 TMO=5 PP=7 X2P=-1

TEST 530 RUN #2 POINT 0



(i)

Figure 10.- Continued.

X-RING 60X60 AT 180X CONV MODE STOP ALF-2 TH0-5 PP-7 X2P--1

TEST 530 RUN 42 POINT 6

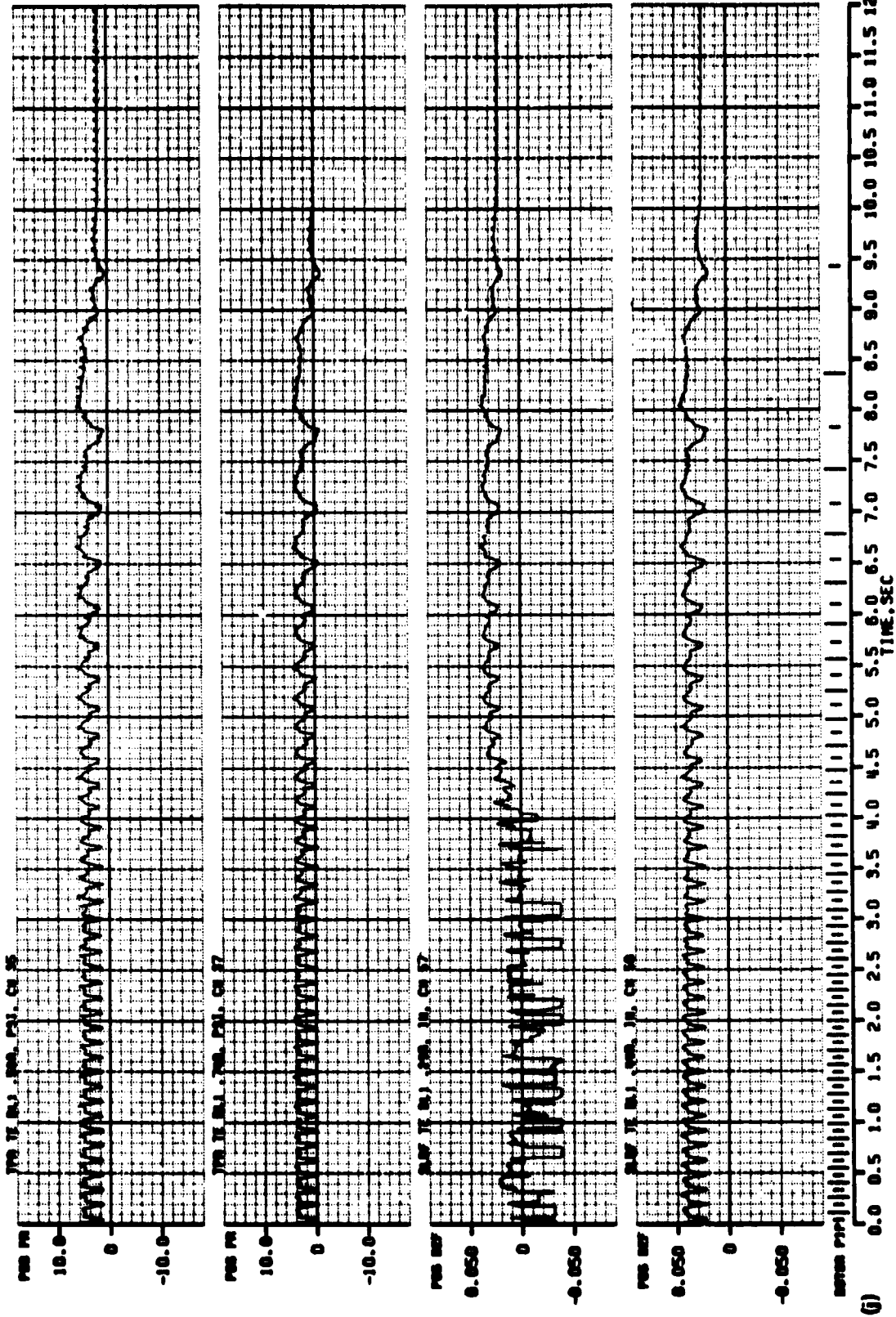


Figure 10.- Continued.

X-WING 40280 MT 100K CONV MODE STOP ALF=2 TH0=5 PP=7 X2P=-1

TEST 559 RUN 42 POINT 8

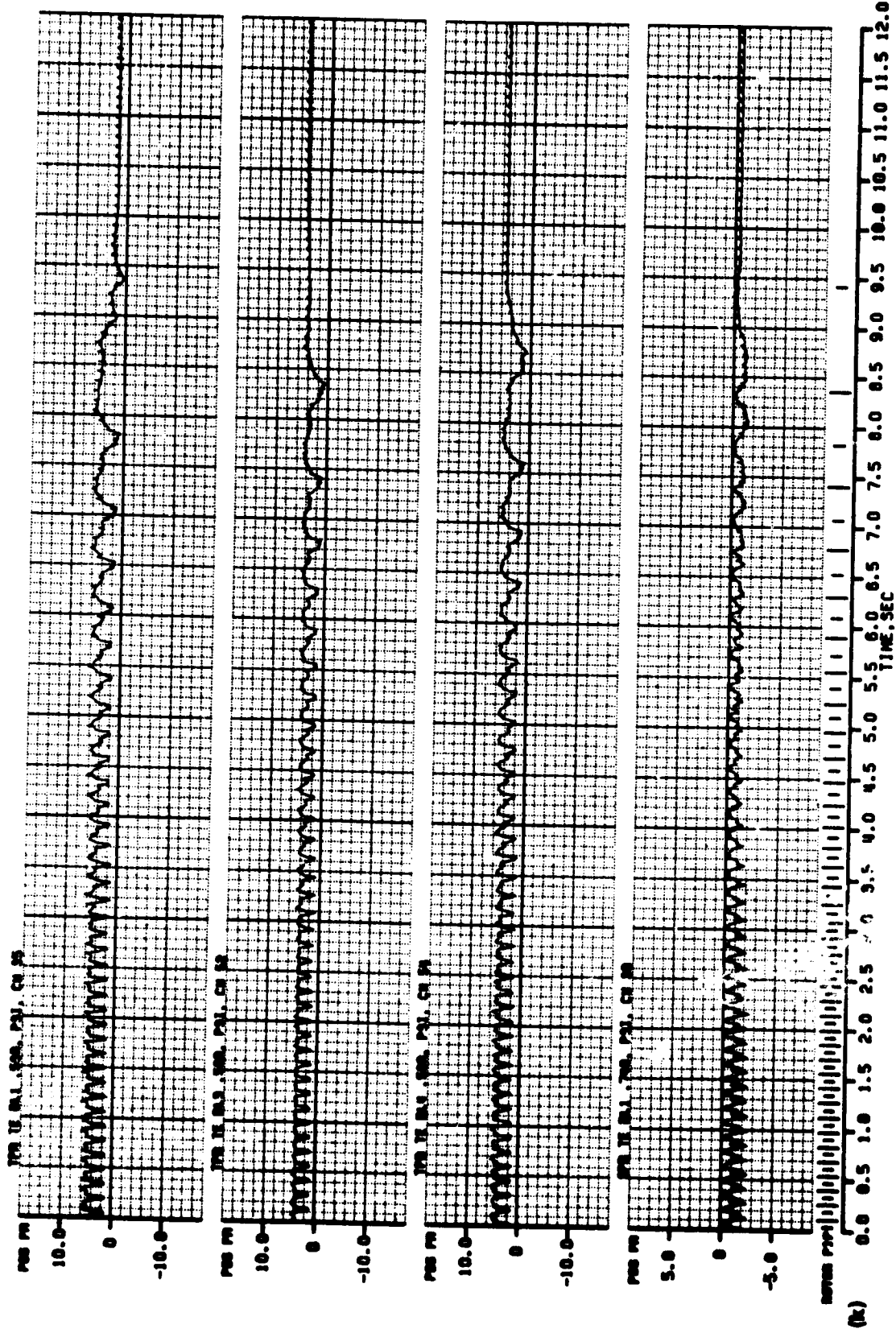


Figure 10.- Continued.

K-MIMS 60200 WT 100X CONV MODE STOP ALF-2 TIMO--5 PP-7 X2P--1

TEST 530 RUN 42 POINT 8

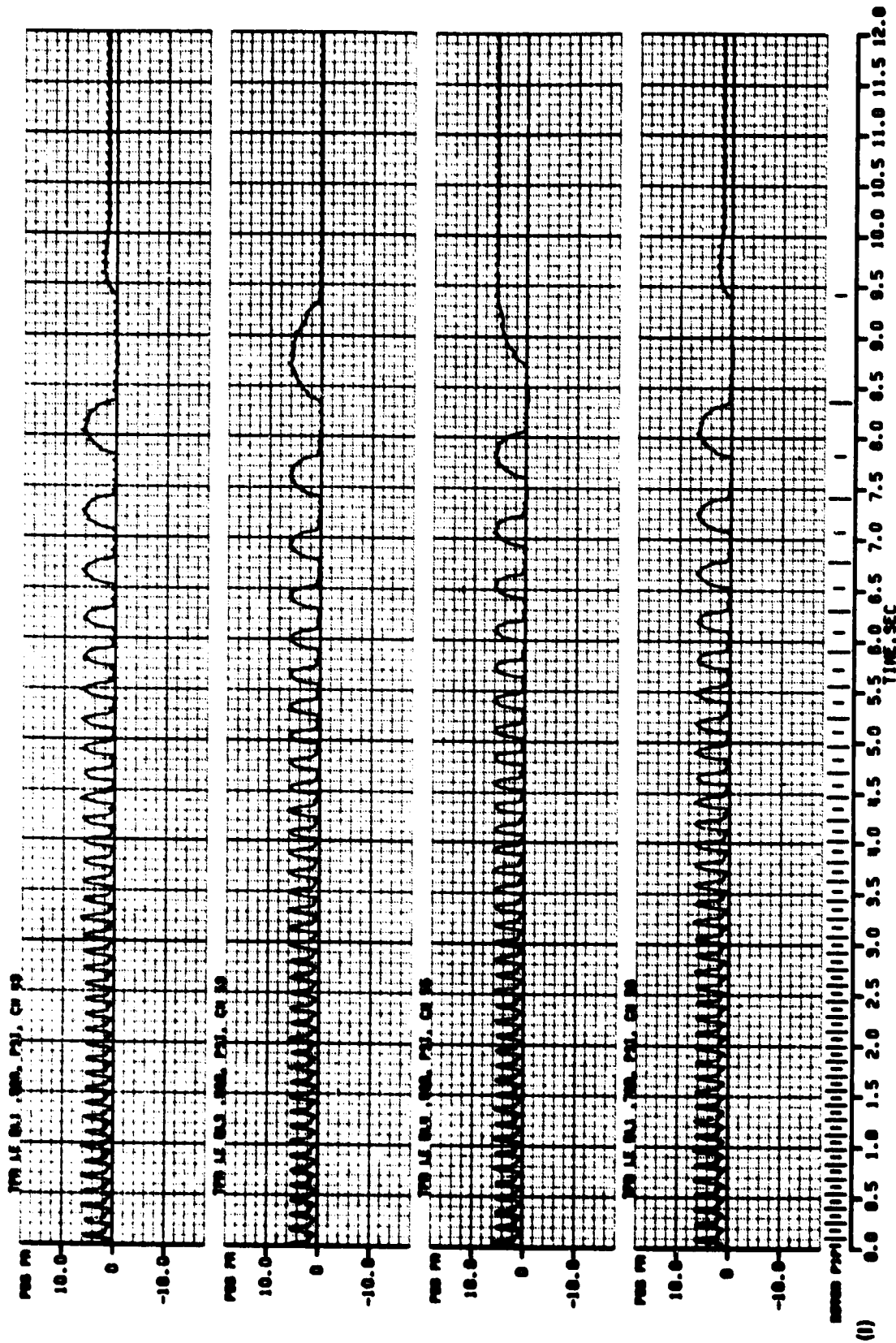


Figure 10.- Continued.

X-RING 40000 NT 180K CONV MODE STOP ALF=2 THO=5 PP=7 X2P=-1
 TEST 538 RUN 02 POINT 8

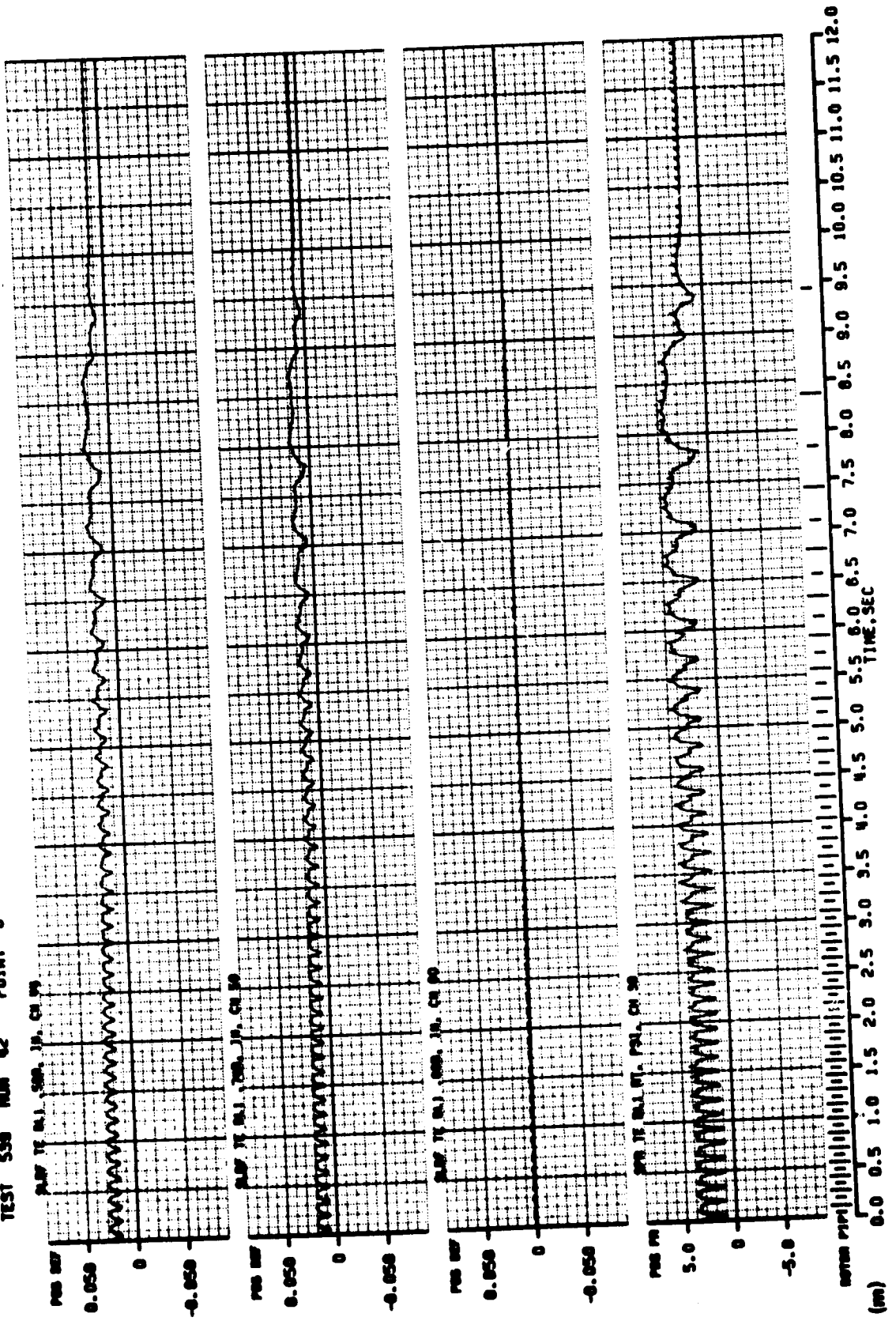


Figure 10.- Concluded.

X-WING 40X60 WT 180K CONV MODE START ALF=2 THD=4 PP=6 42P--

TEST 539 RUN 83 POINT 2

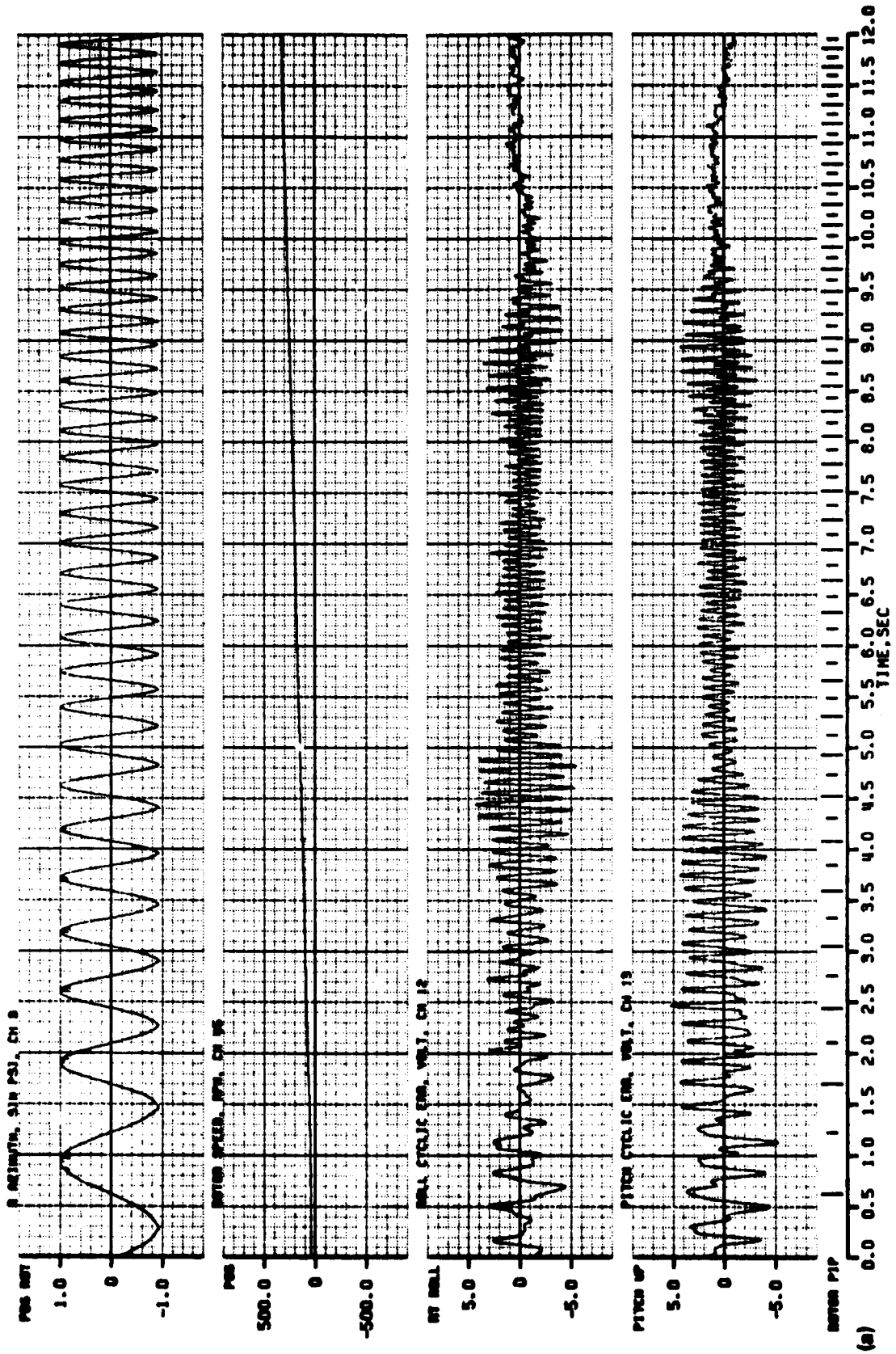


Figure 11.- Time history of run 43, data point 2, rotor transient from fixed-wing to rotary-wing.

X-NING 40X80 NT 180X CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-

TEST 539 RUN 03 POINT 2

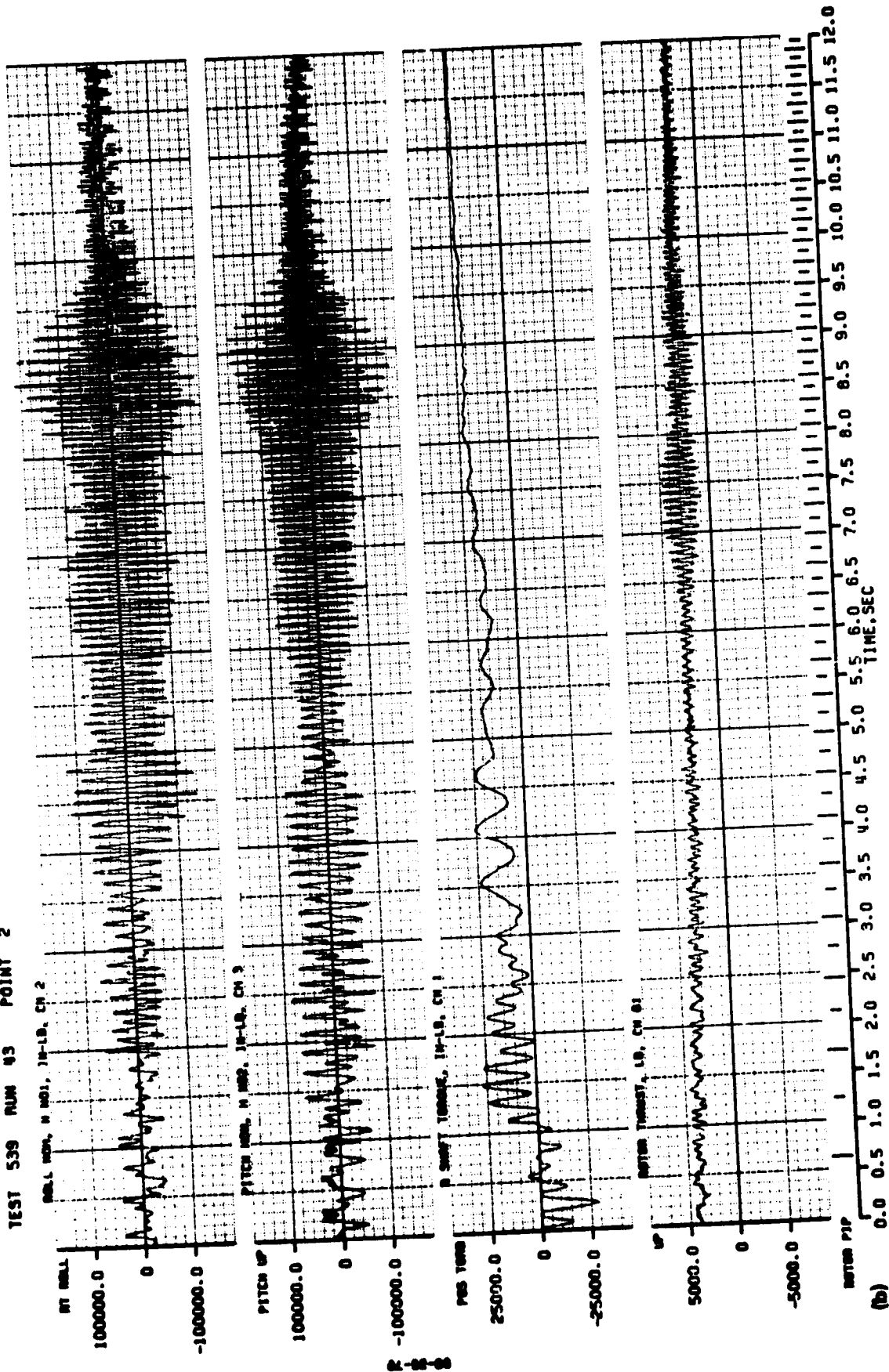


Figure 11.- Continued.

X-MING 60160 MT 160K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-

TEST 539 RUN 43 POINT 2

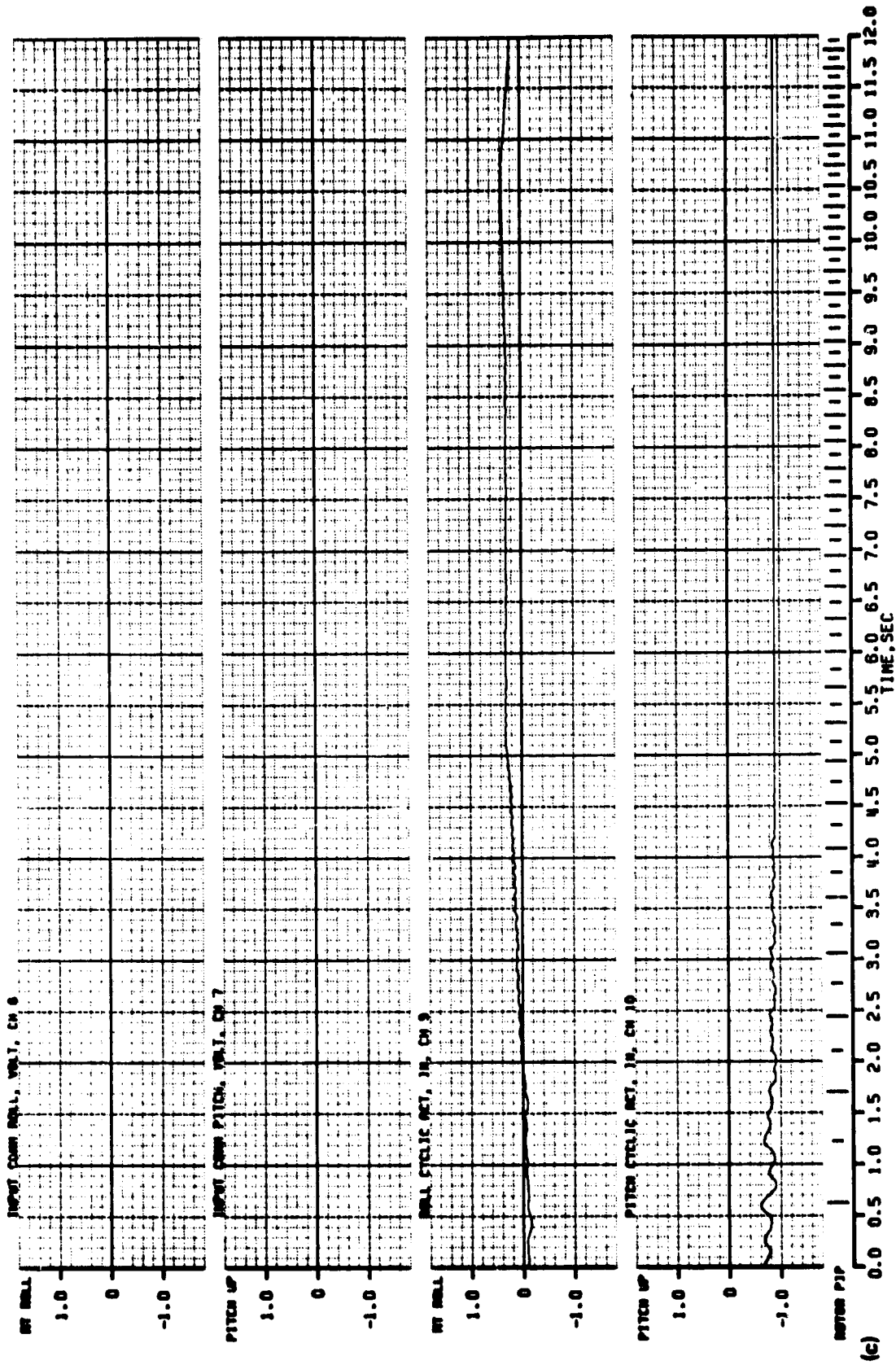


Figure 11.- Continued.

X-RING 10X00 MT 100K CONV MODE START ALF=2 TMO=-4 PP-6 X2P--

TEST 539 RUN 43 POINT 2

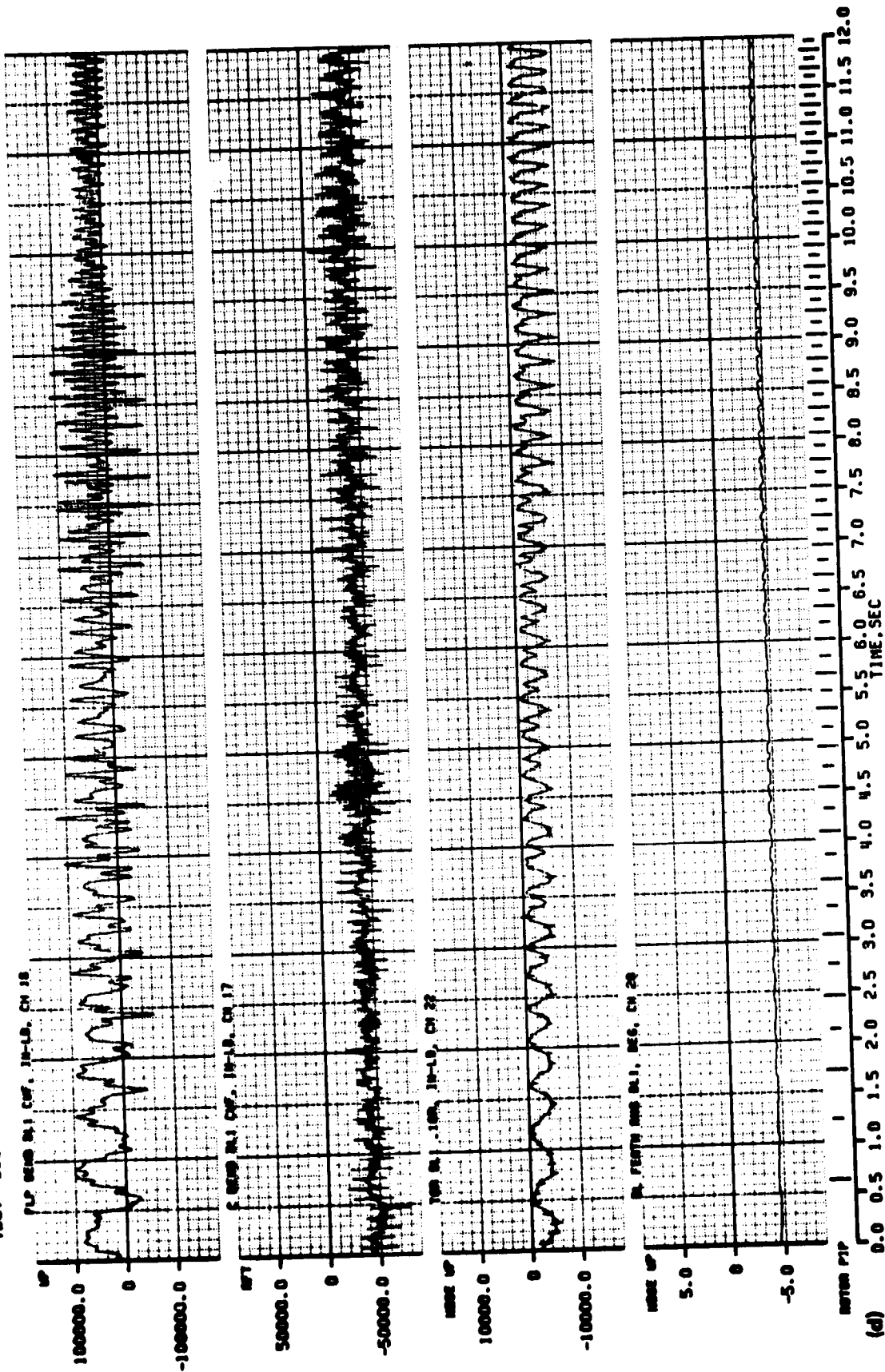


Figure 11.- Continued.

X-WING 40180 WT 180K CONV MODE START ALF-2 TMS--N PP-6 X2P--
 TEST 539 RUN N3 POINT 2

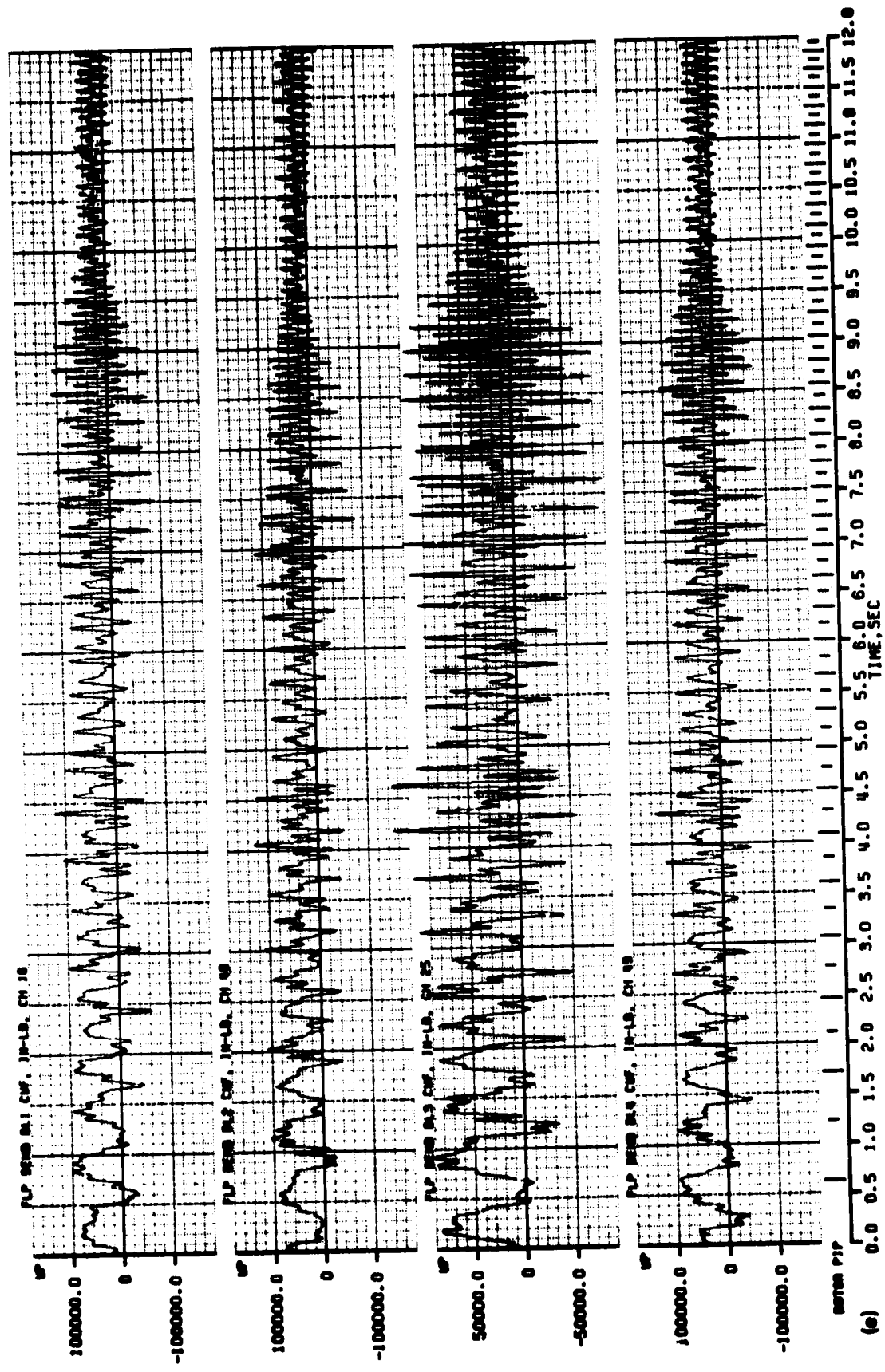


Figure 11.- Continued.

X-WING 40X80 MT 180X CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-

TEST 539 RUN 43 POINT 2

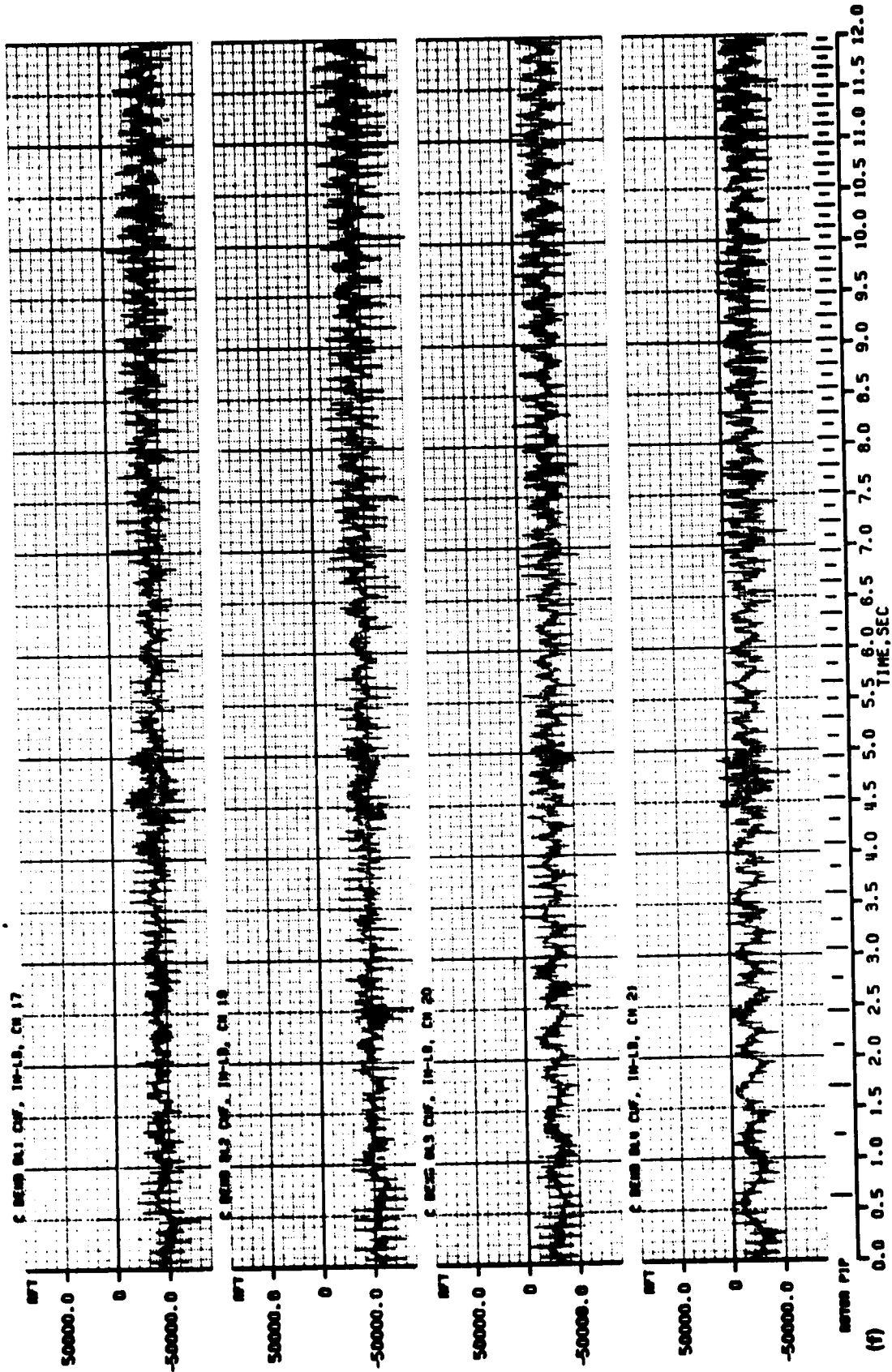
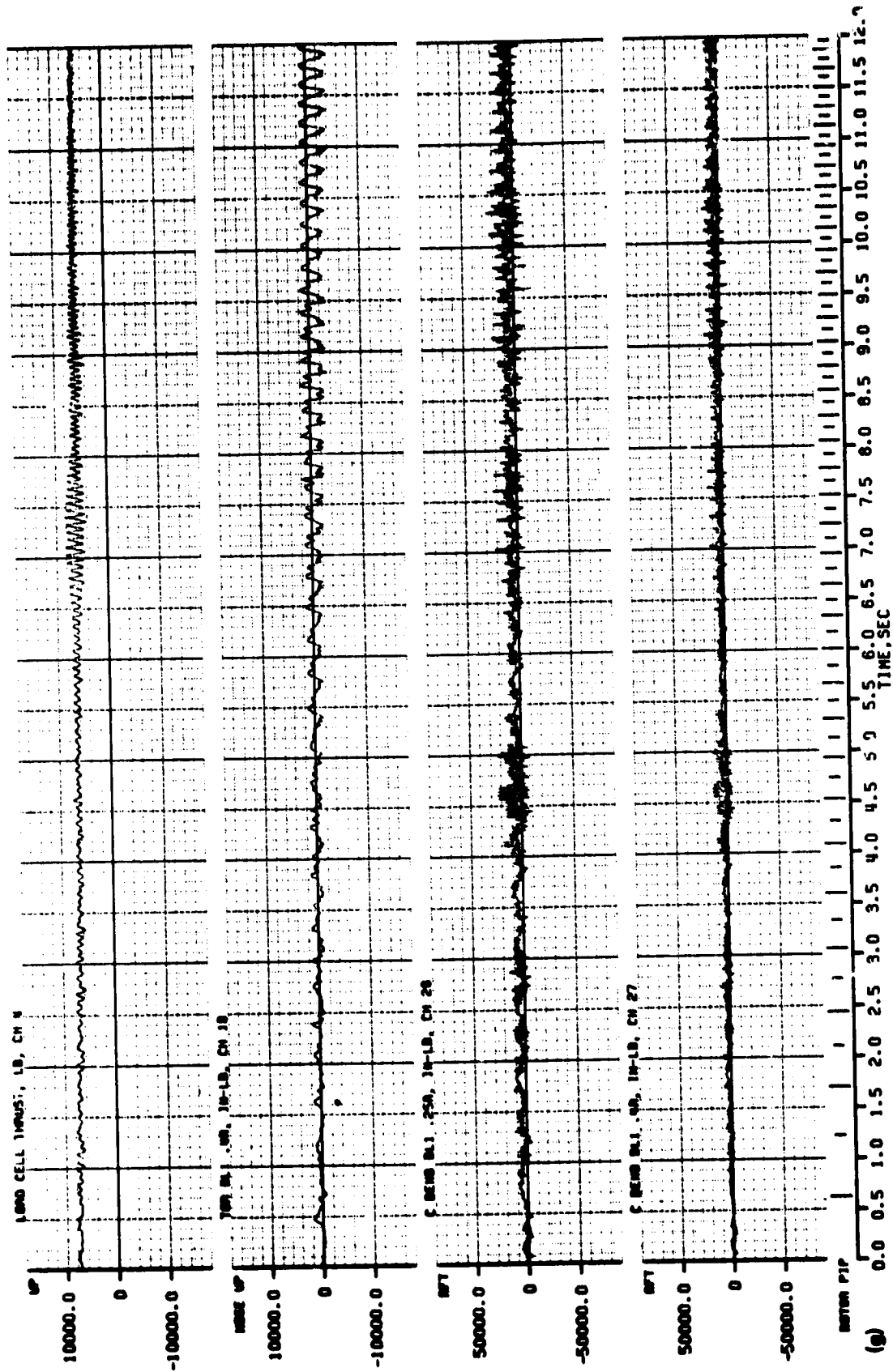


Figure 11.- Continued.

X-RING NOX80 WT 180K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-

TEST 539 RUN 43 POINT 2



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Figure 11.- Continued.

X-MING 40X80 MT 180K CONV MODE START ALF=2 TH0=-4 PP=6 X2P=-

TEST 539 RUN #3 POINT 2

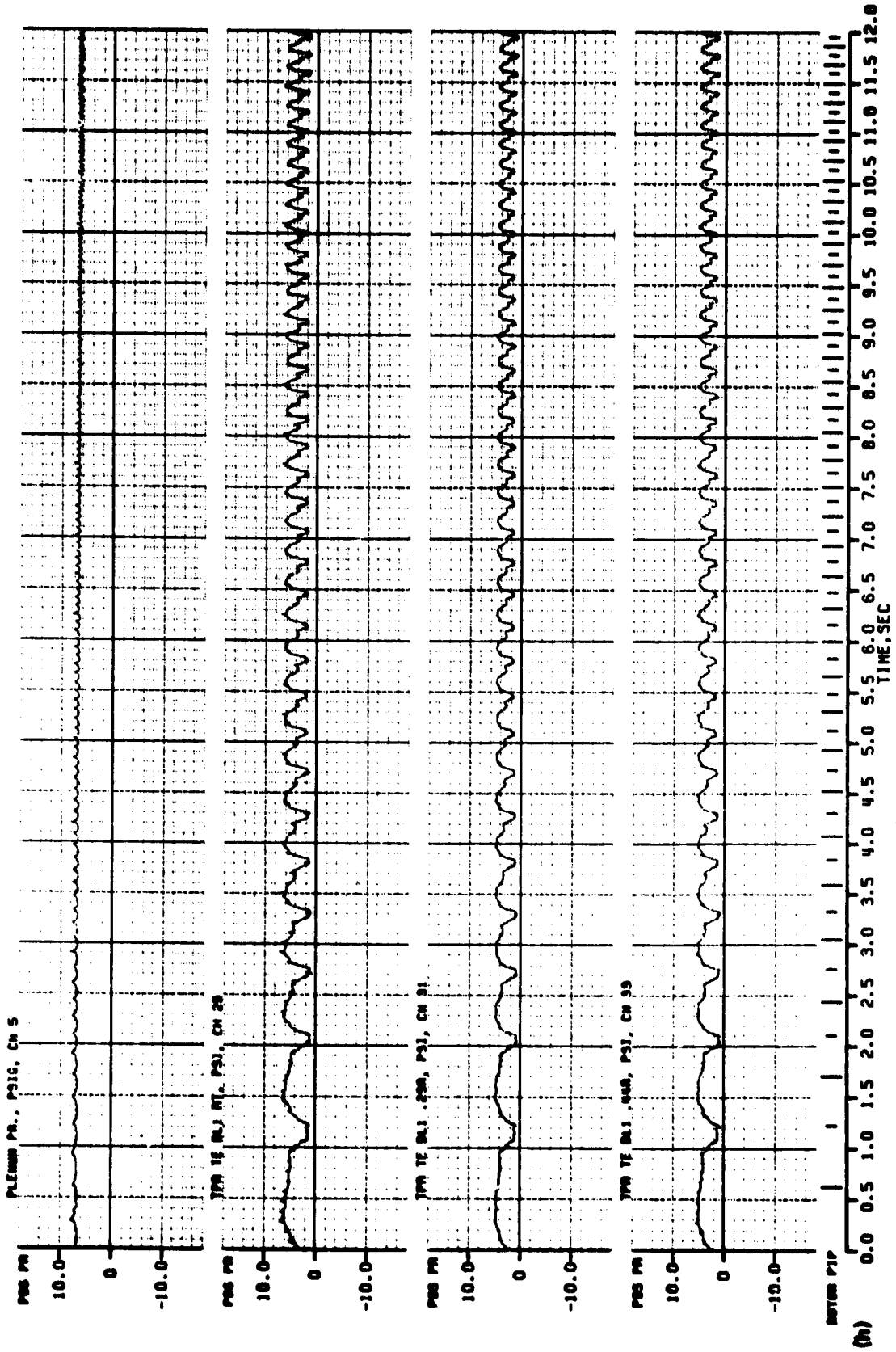
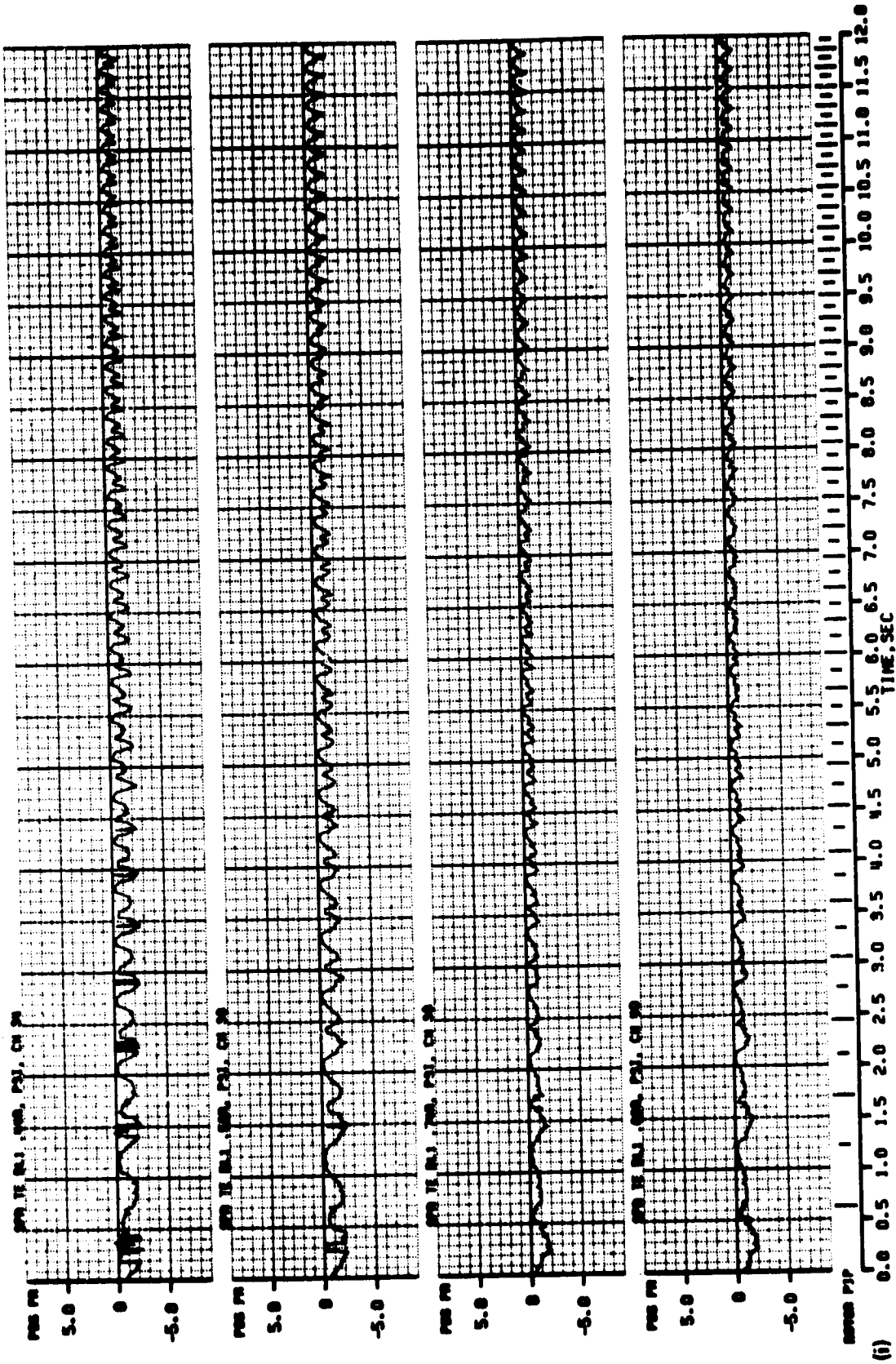


Figure 11.- Continued.

X-NING 40180 MT 180K CONV MODE START RLF=2 TMO=9 PP=6 X2P--

TEST 538 RUN 43 POINT 2



(i)

Figure 11.- Continued.

X-NING 40X60 MT 100K CONV MODE START ALF=2 TH0--4 PP=6 X2P--
 TEST 539 RUN 43 POINT 2

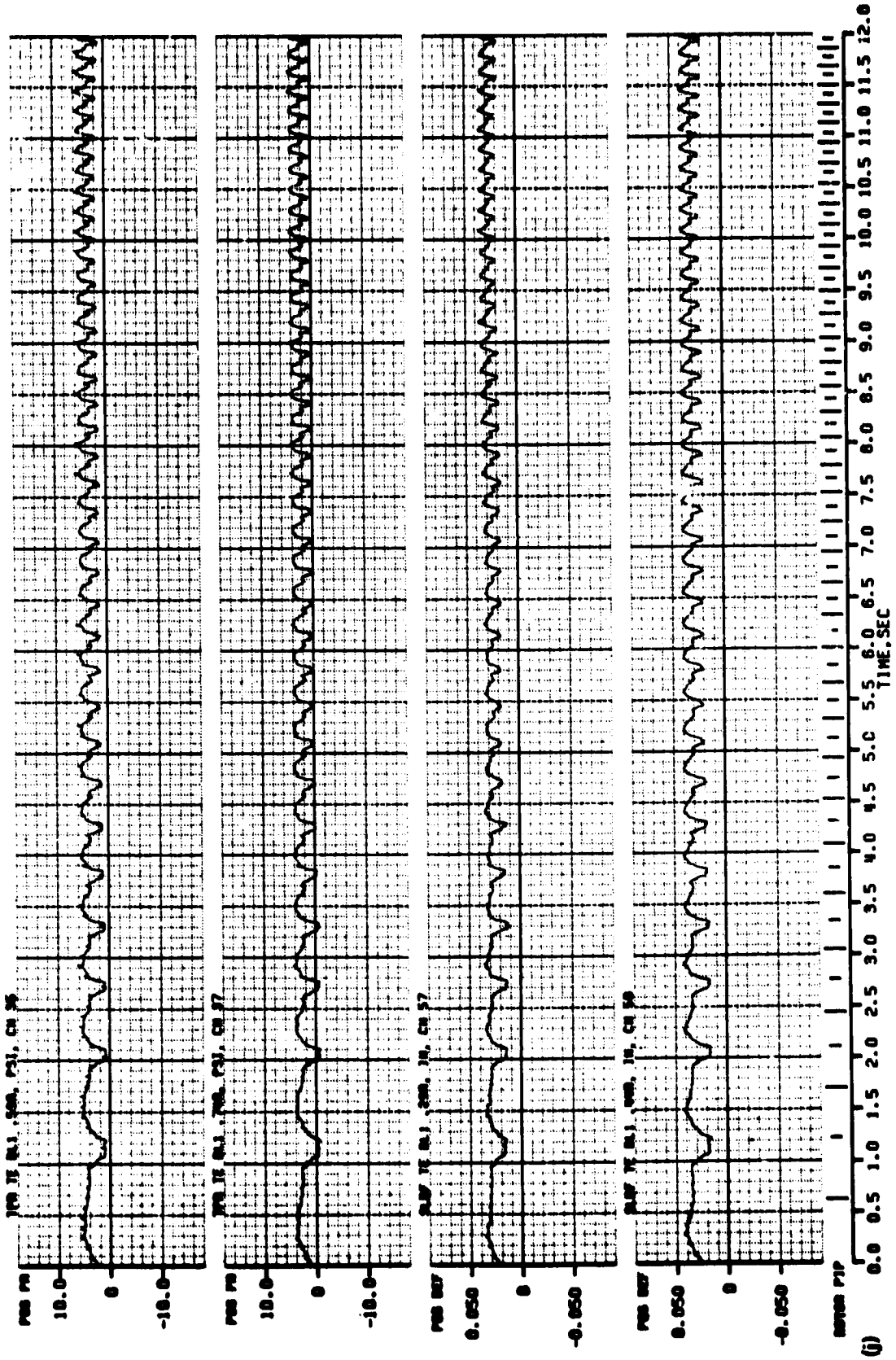
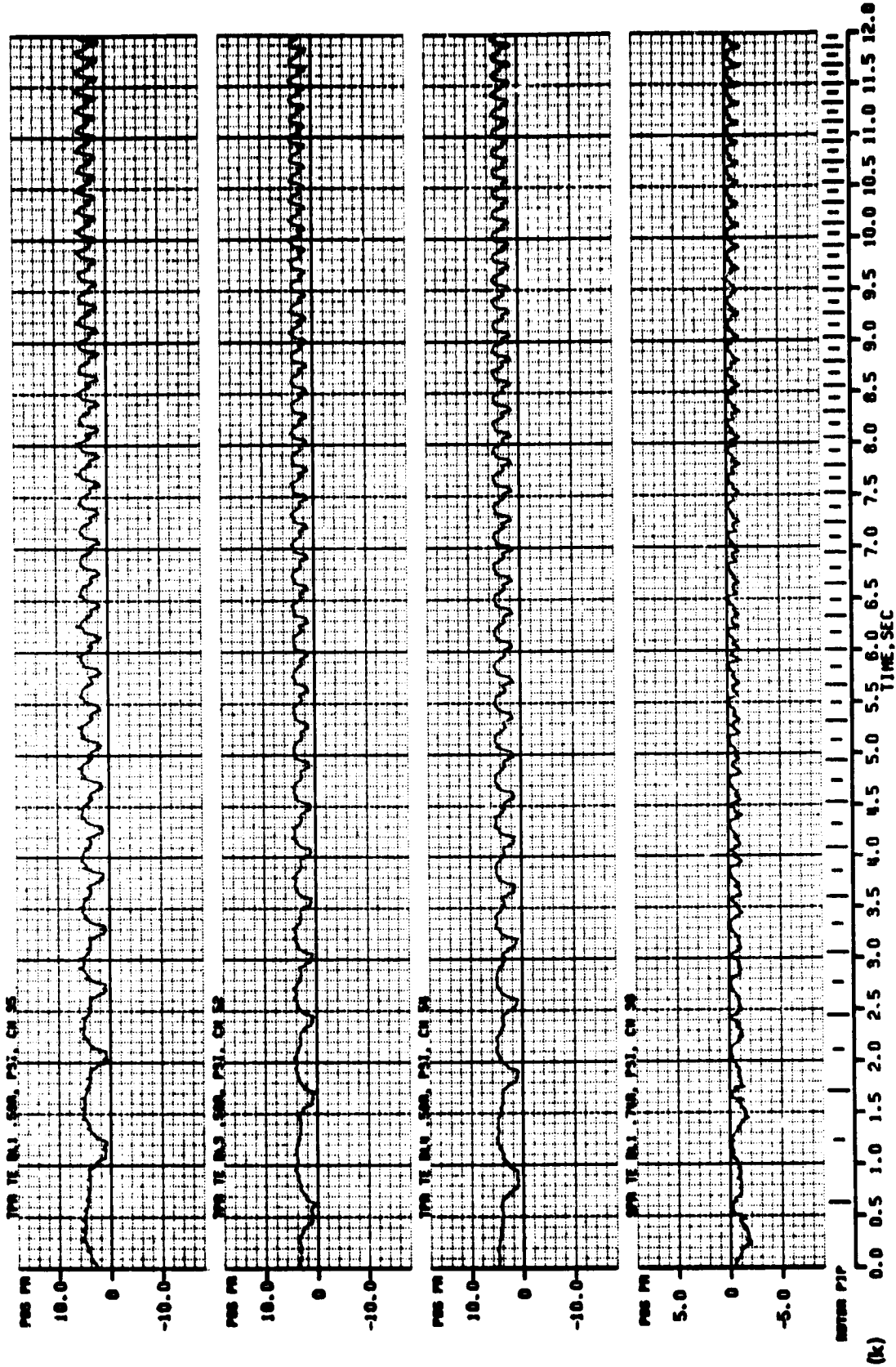


Figure 11.- Continued.

X-MING 40160 MT 180K CONV MODE START ALF=2 TMO=-4 PP=6 X2P=-

TEST 539 RUN 43 POINT 2



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Figure 11.- Continued.

I-WING 40100 NT 180K CONV MODE START ALF=2 TH0=-N PP=8 X2P--

TEST 539 RUN 43 POINT 2

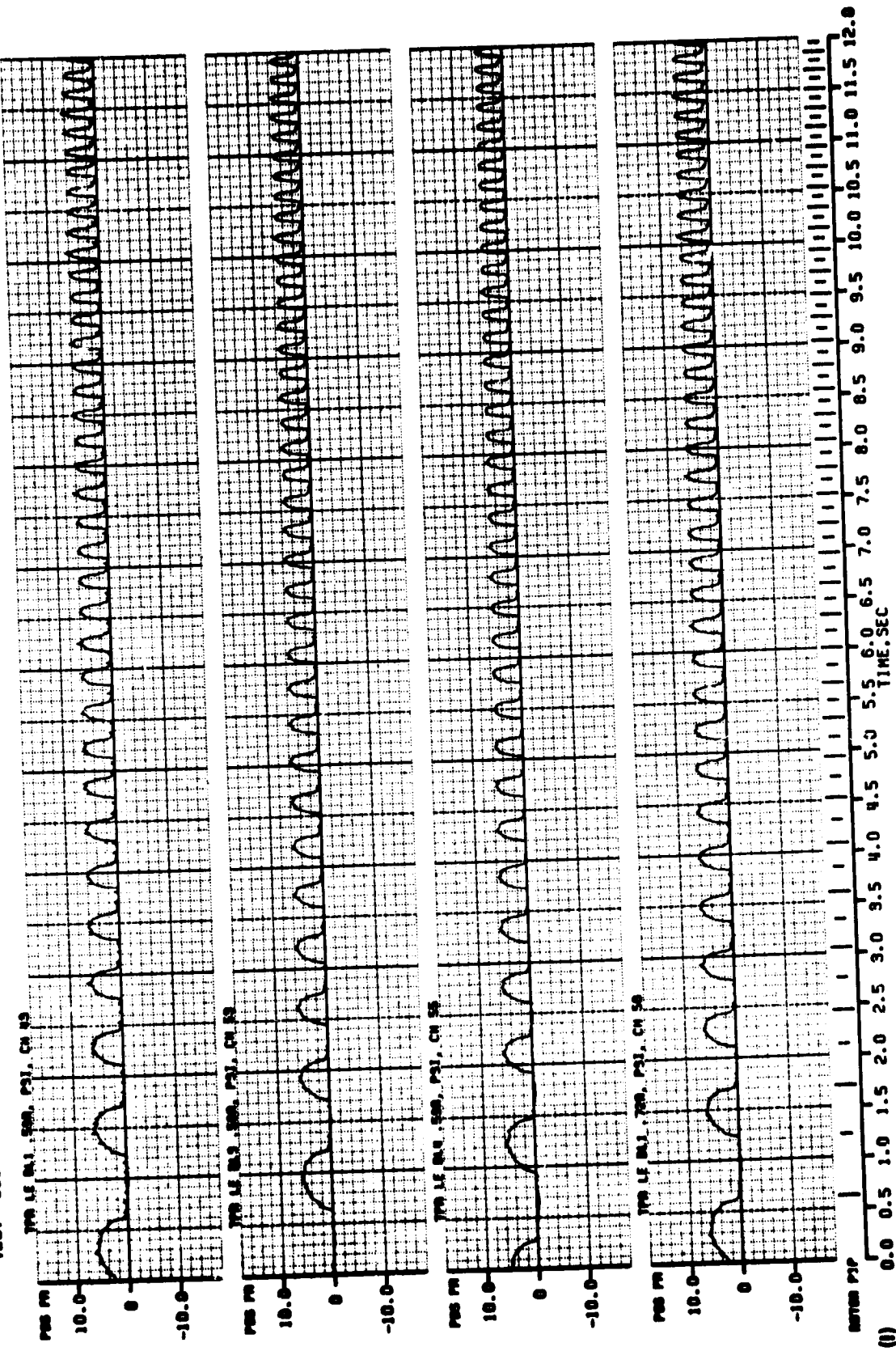


Figure 11.- Continued.

X-NING 40X00 MT 180K CONV MODE START ALF-2 TNG--4 PP-6 X2P--

TEST 539 RUN 43 POINT 2

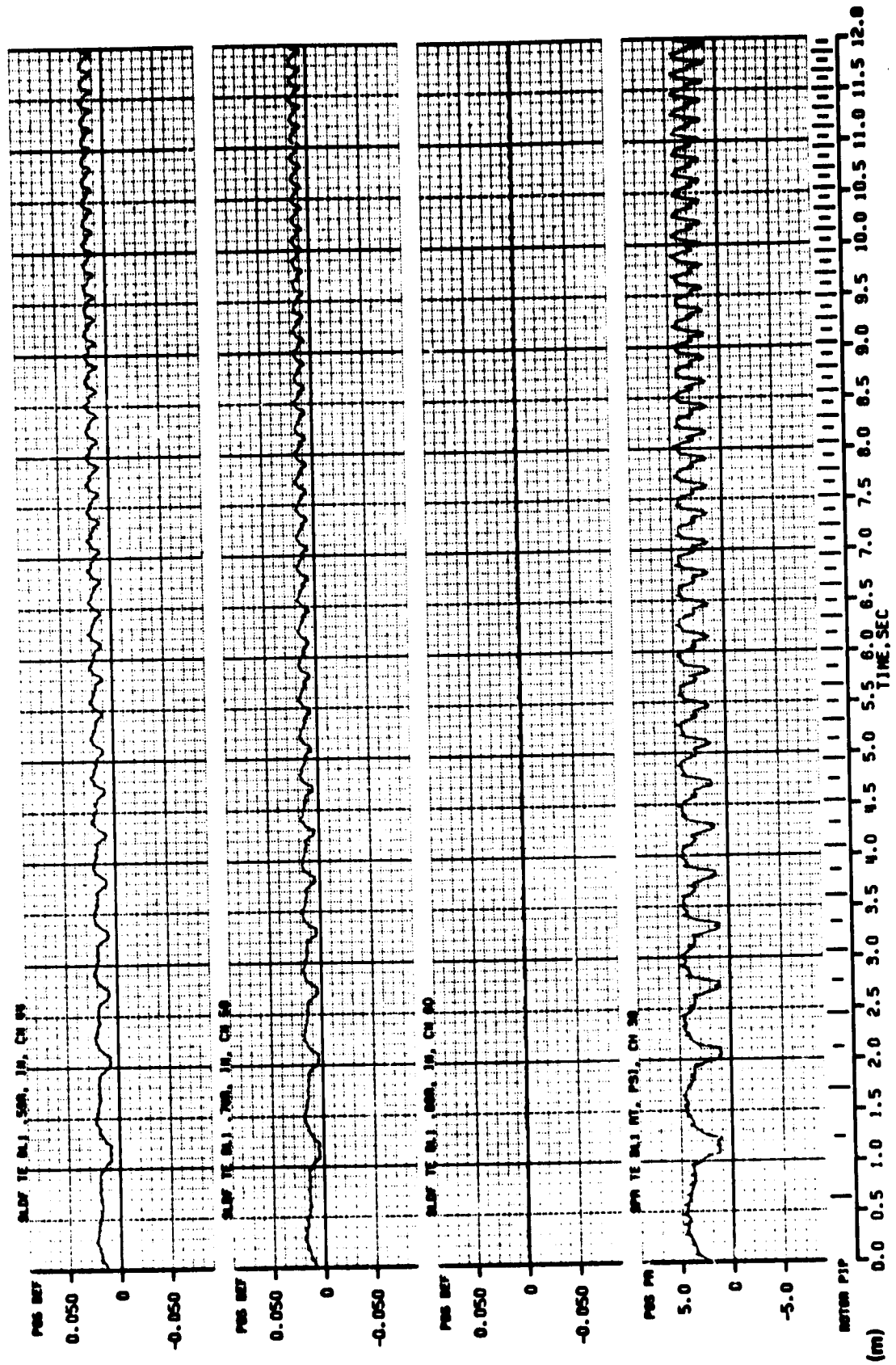


Figure 11.- Concluded.

X-WING 40000 MT 180X CONV MODE STOP ALF=2 TMO--5 PP=7 X2P--1

TEST 550 RUN 43 POINT 4

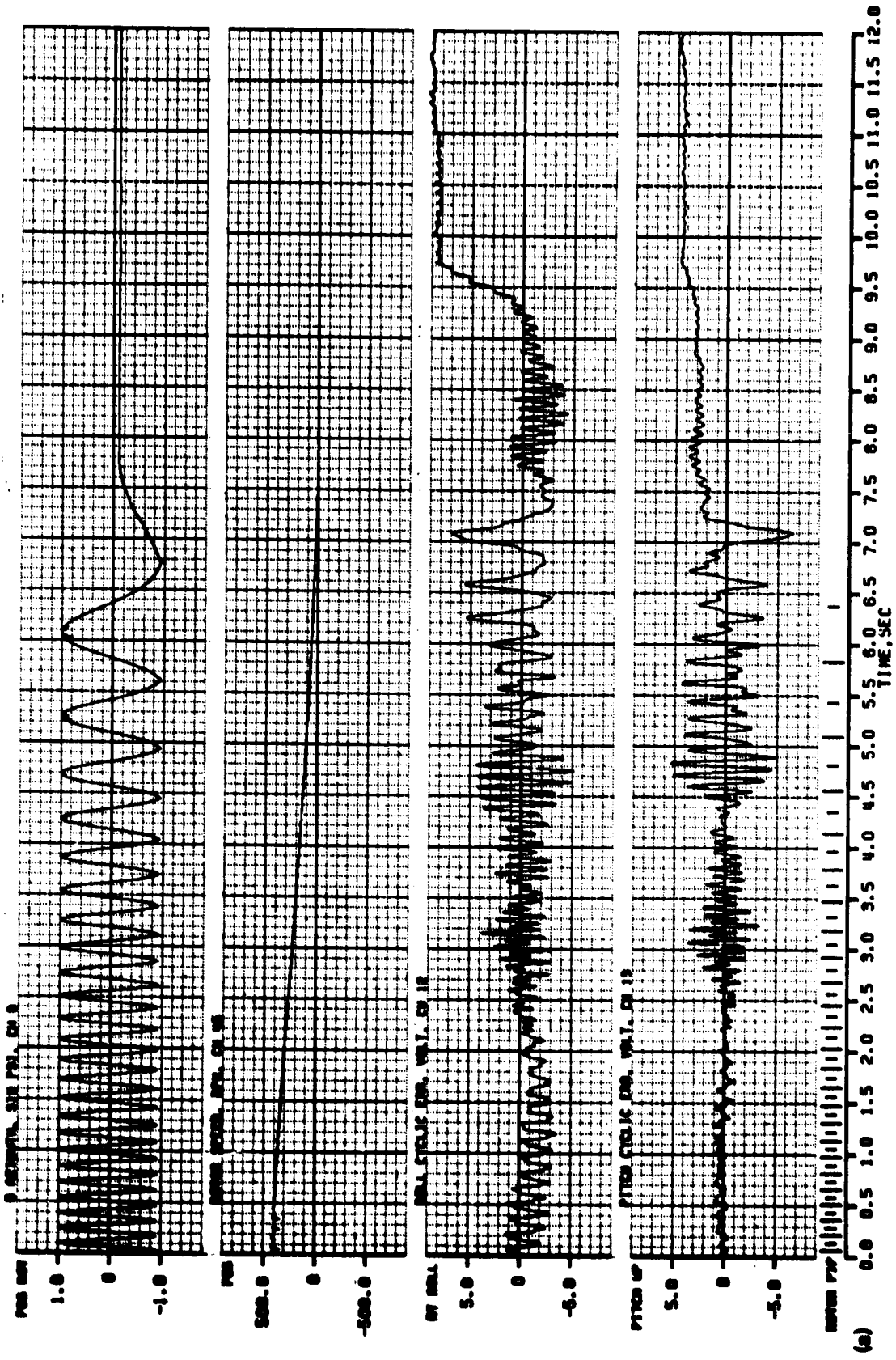


Figure 12.- Time history of run 43, data point 4, rotor transient from rotary-wing to fixed-wing.

X-MING 40160 MT 180X CONV MODE STOP ALF=2 THD=5 PP=7 X2P=-1

TEST 538 RUN 43 POINT 4

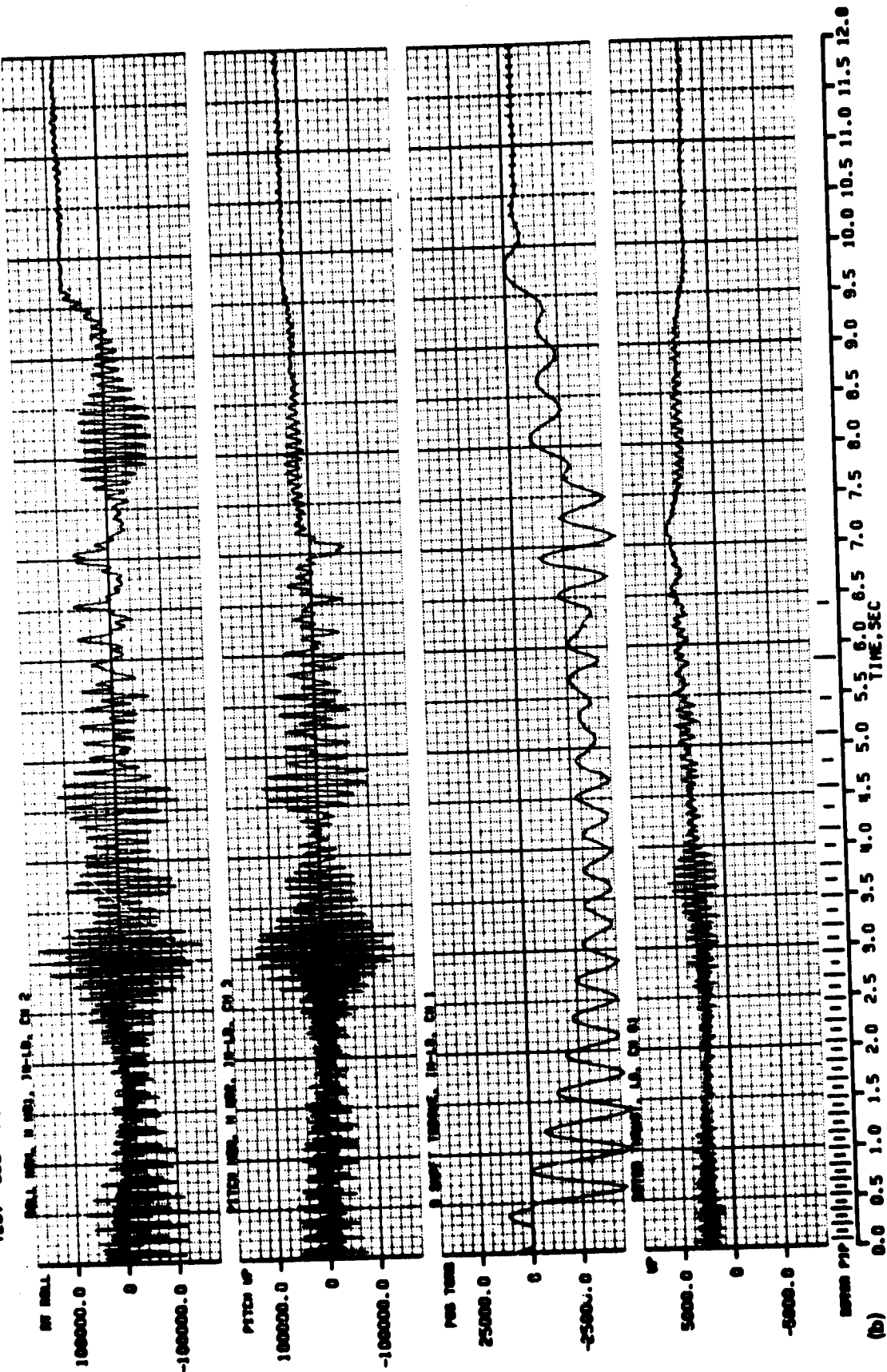


Figure 12.- Continued.

X-RING 40280 NT 100K CONV MODE STOP ALF=2 TH0=-5 PP=7 X2P=-1
 TEST 530 RUN 43 POINT 4

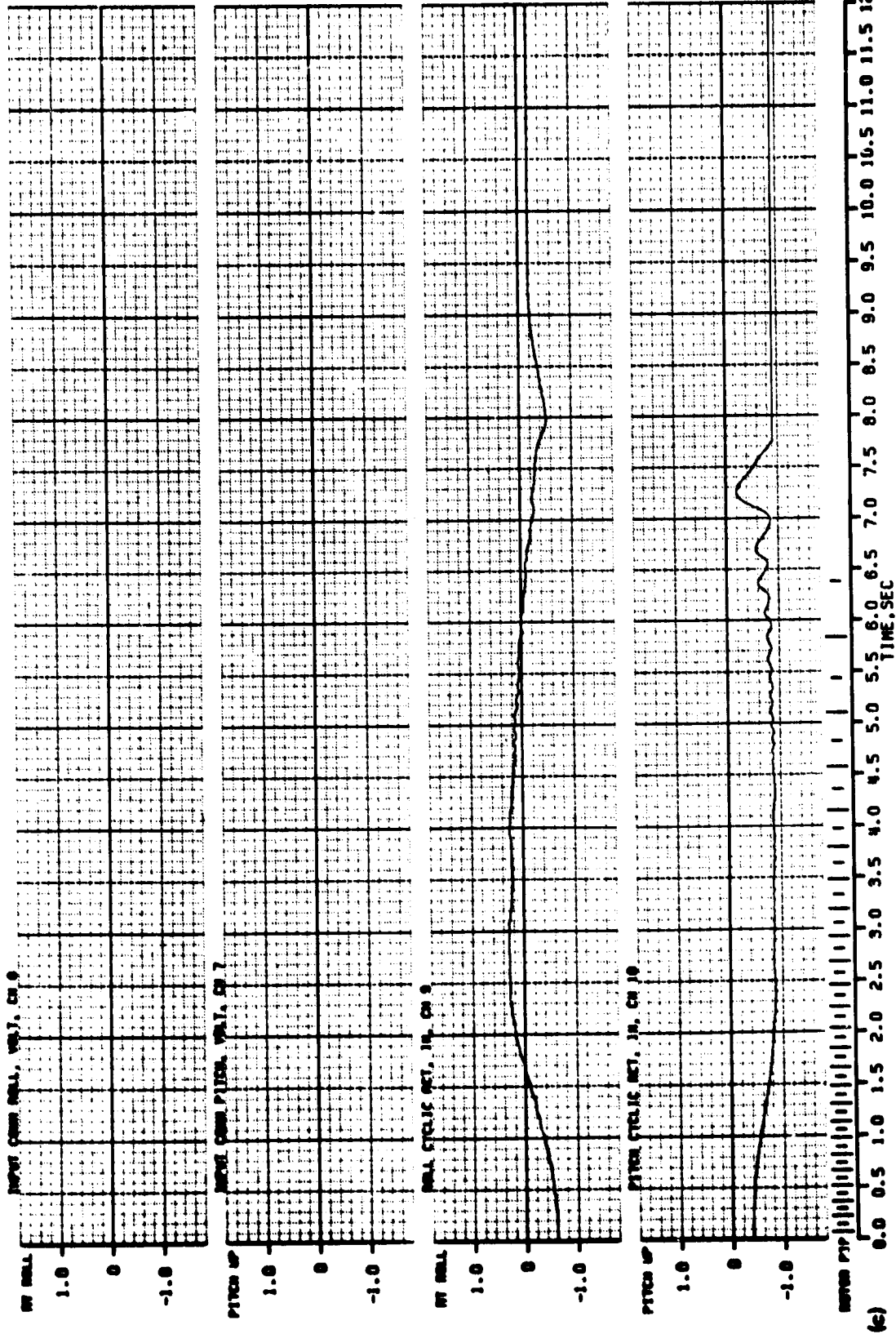


Figure 12.- Continued.

X-MING 40160 MT 180X CONV MADE STOP ALF=2 THO=5 PP=7 X2P=-1

TEST 538 RUN 03 POINT 4

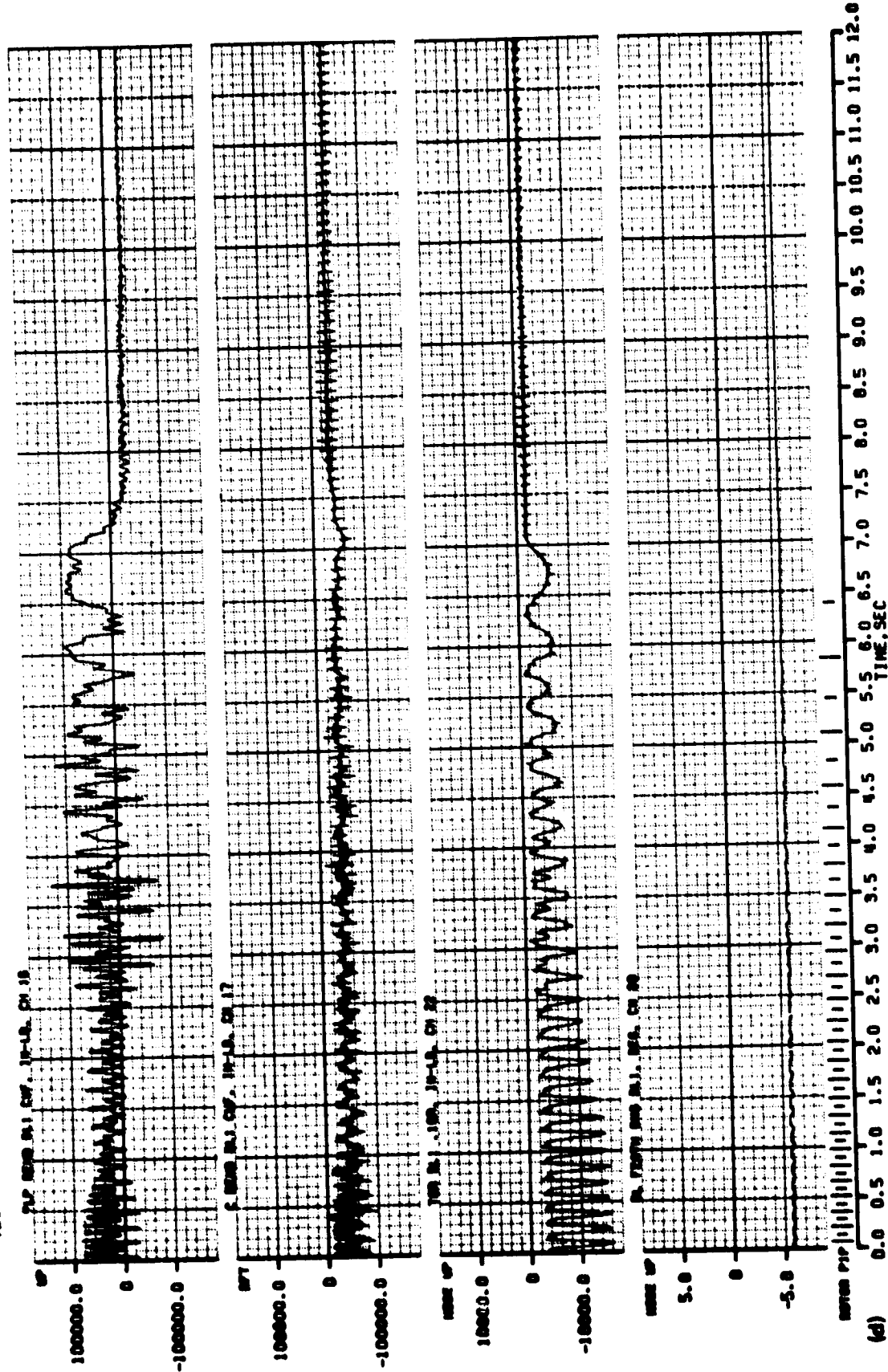


Figure 12.- Continued.

X-MING 402500 MT 180X CONV MODE STOP ALF-2 TMO-S PP-7 X2P=-1

TEST 538 RUN 83 POINT 4

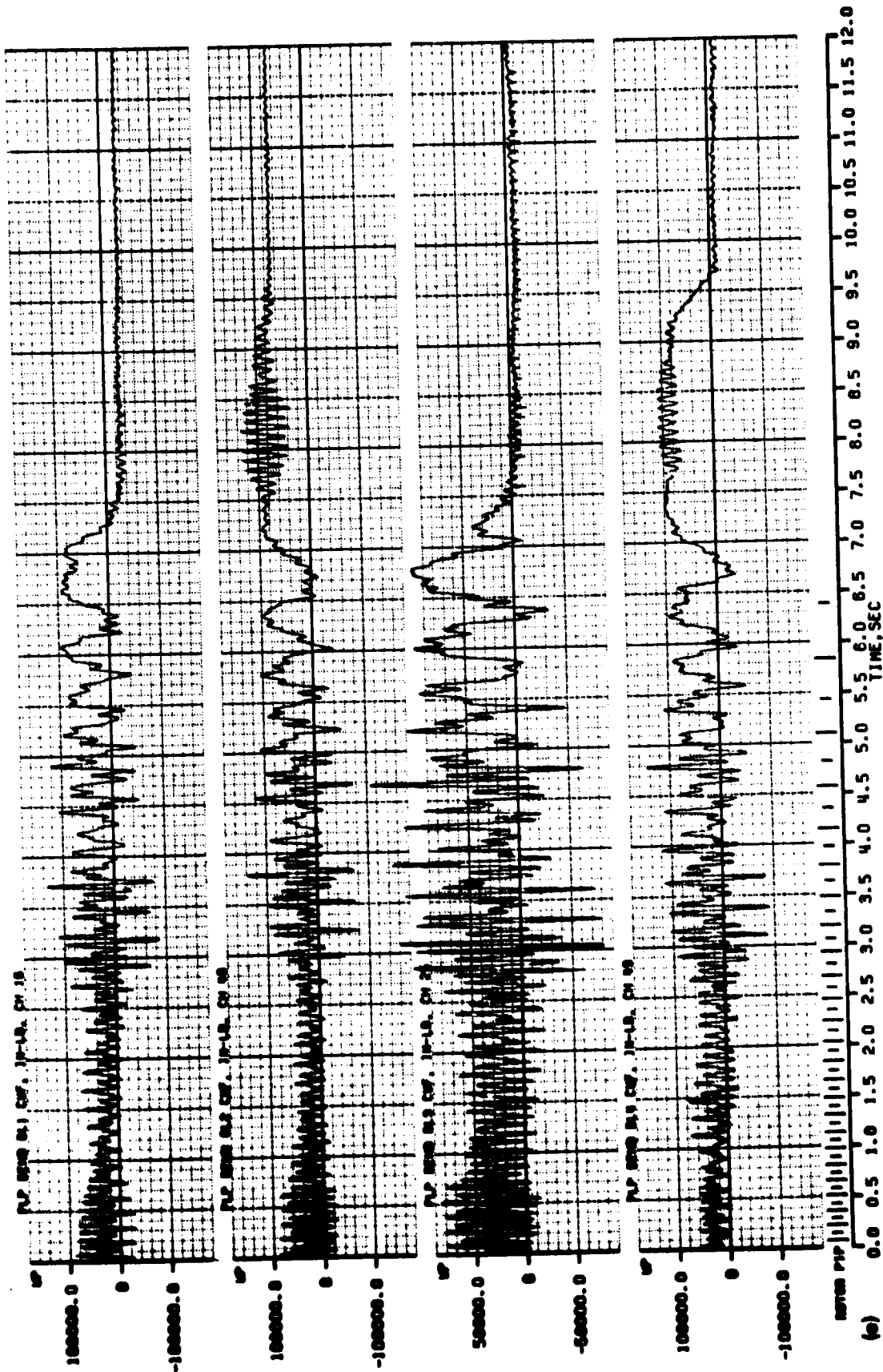
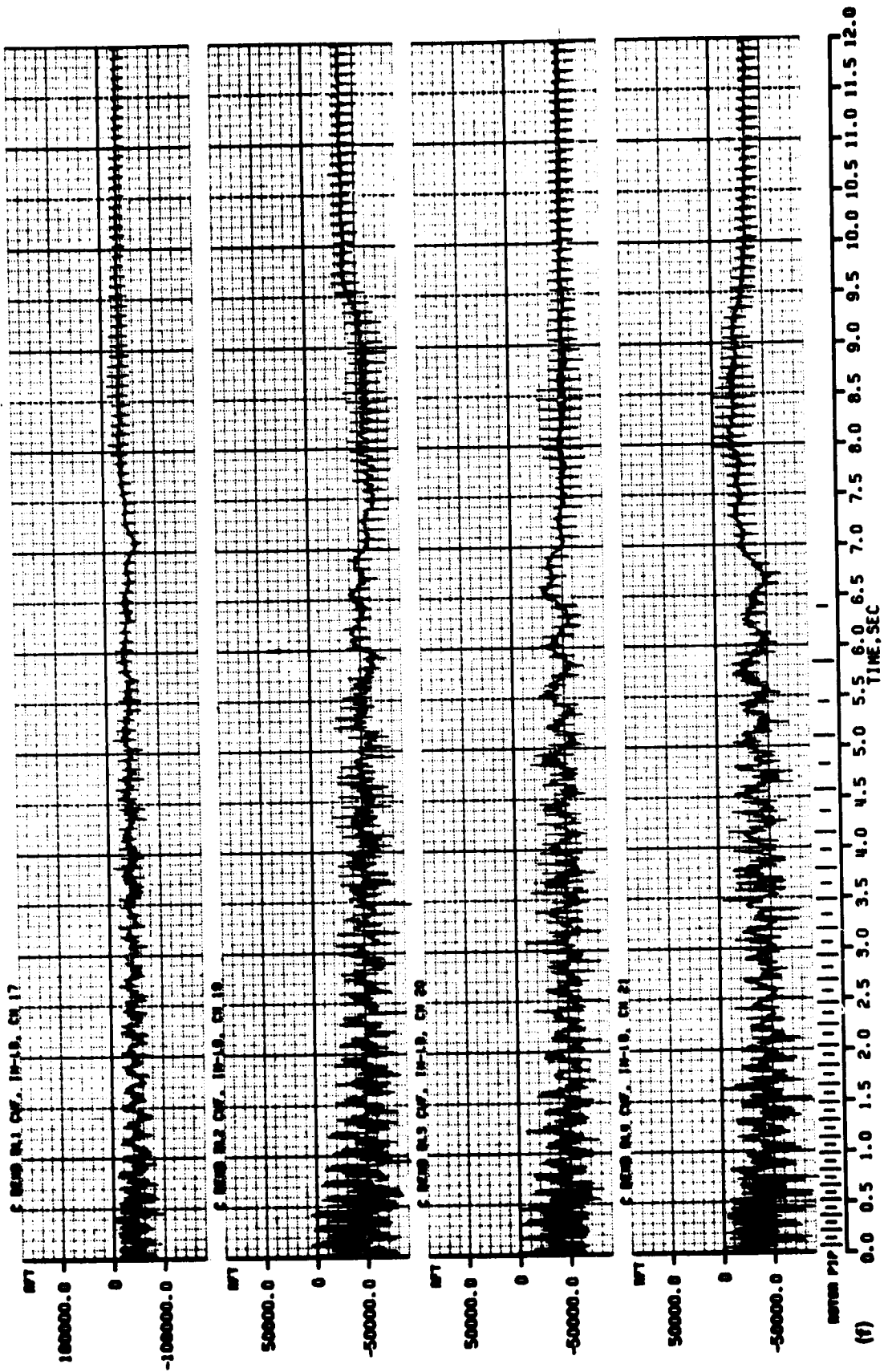


Figure 12.- Continued.

X-MING 40180 NT 180K CONV MODE STOP ALF=2 TH0--5 PP=7 X2P=-1

TEST 539 RUN 83 POINT 8



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Figure 12.- Continued.

X-MING 40160 MT 180X CONV MODE STOP ALF=2 TH0=5 PP=7 X2P=-1

TEST 538 RUN 43 POINT 4

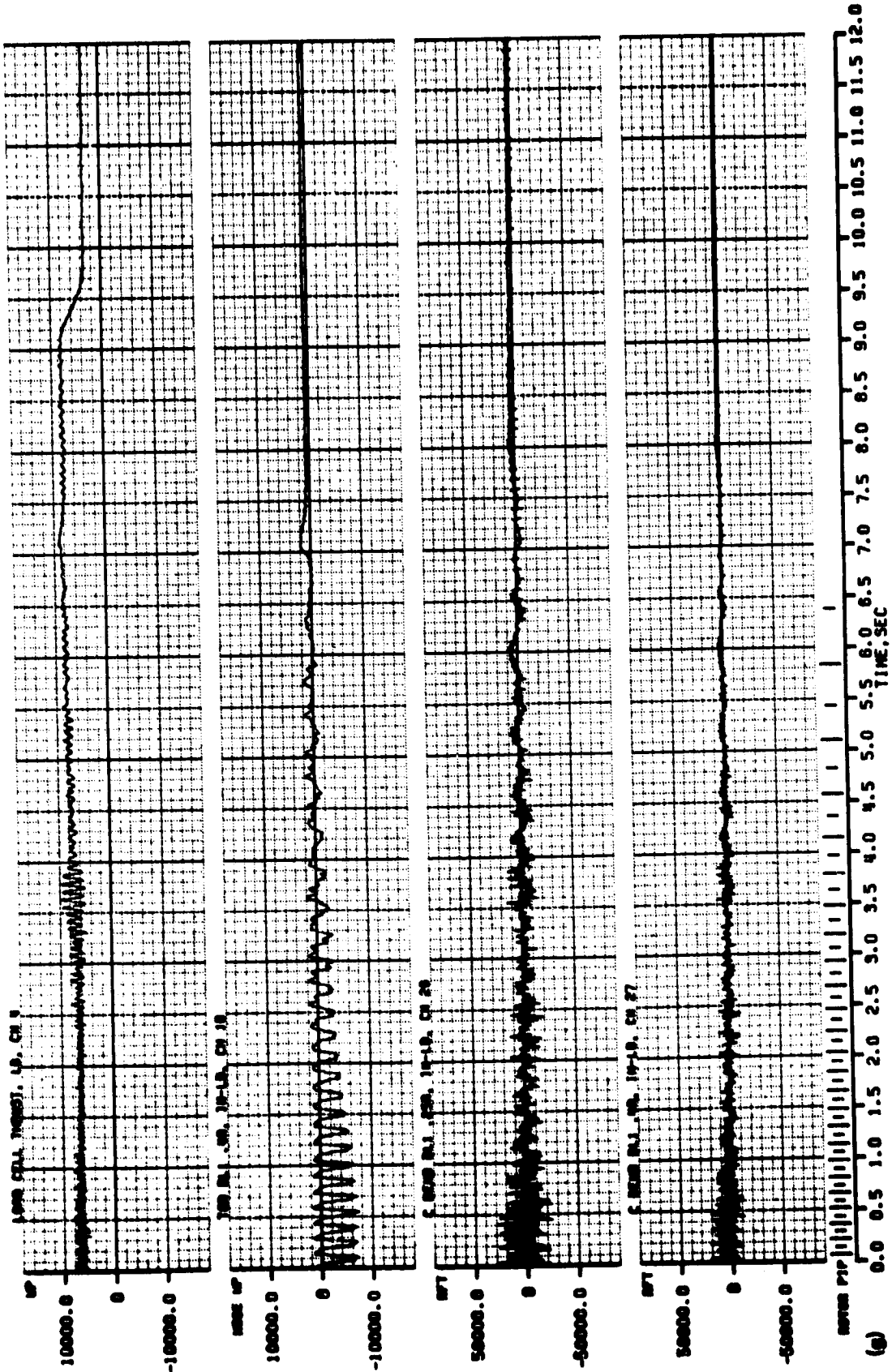


Figure 12.- Continued.

X-MING 40X80 NT 180K CONV MODE STOP ALF=2 TH0--5 PP=7 X2P--1

TEST 539 RUN 03 POINT 4

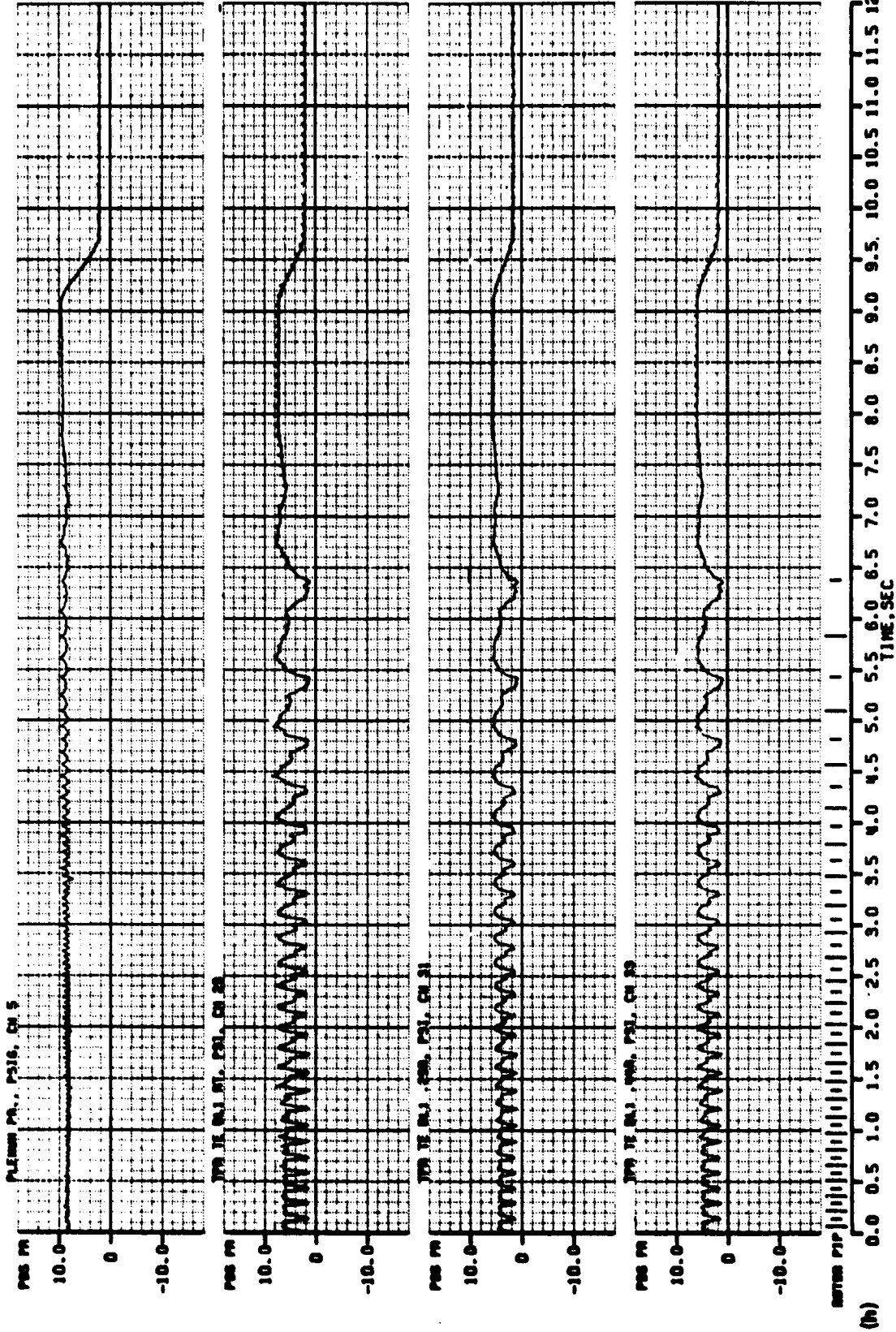


Figure 12.- Continued.

X-MING 40100 MT 180K CONV MODE STOP ALF-2 THO--5 PP-7 X2P--1

TEST 539 RUN 45 POINT 4

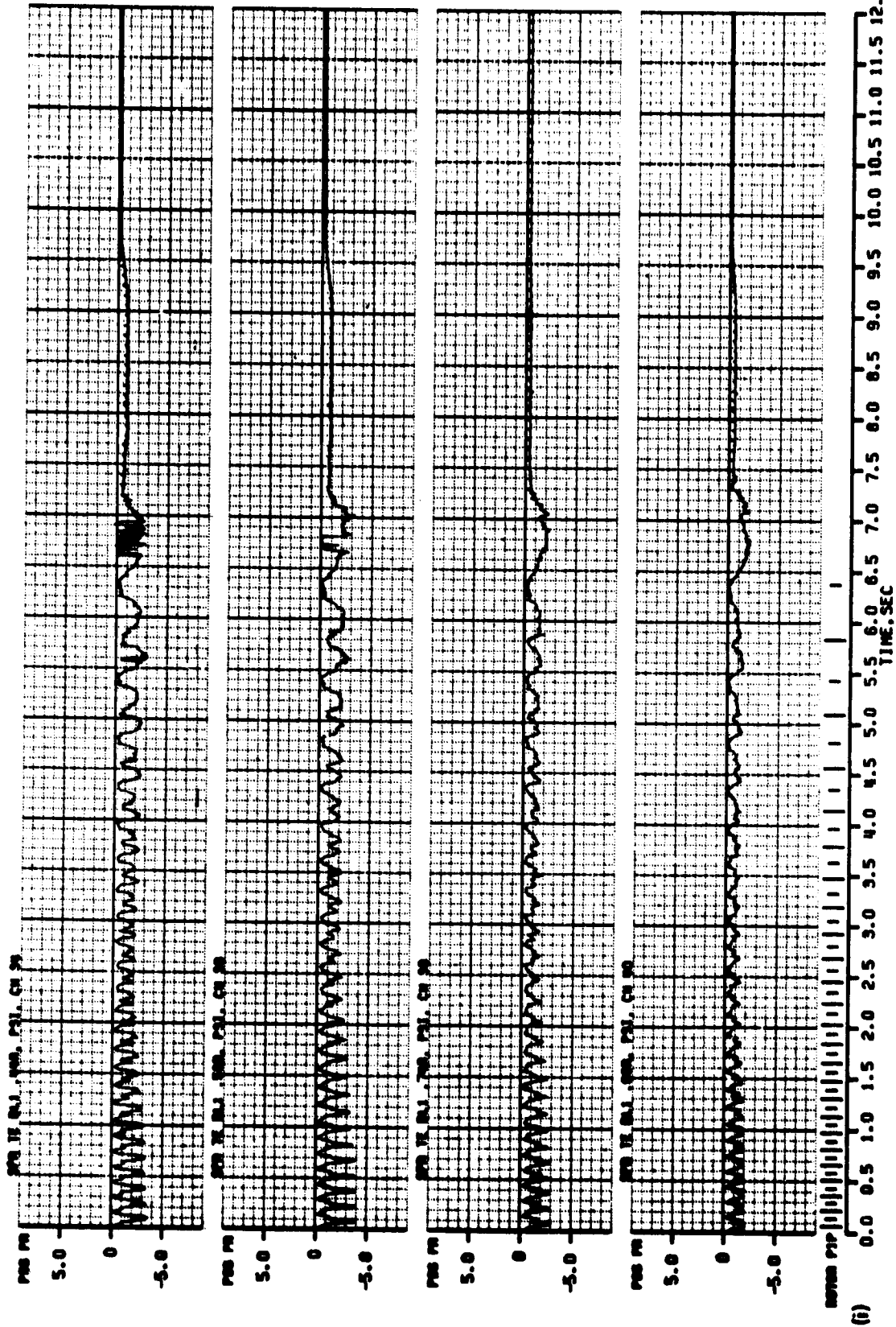


Figure 12.- Continued.

X-MING 80380 MT 160X CONV MODE STOP ALF=2 TH0=-5 PP=7 X2P=-1

TEST 539 RUN 43 POINT 4

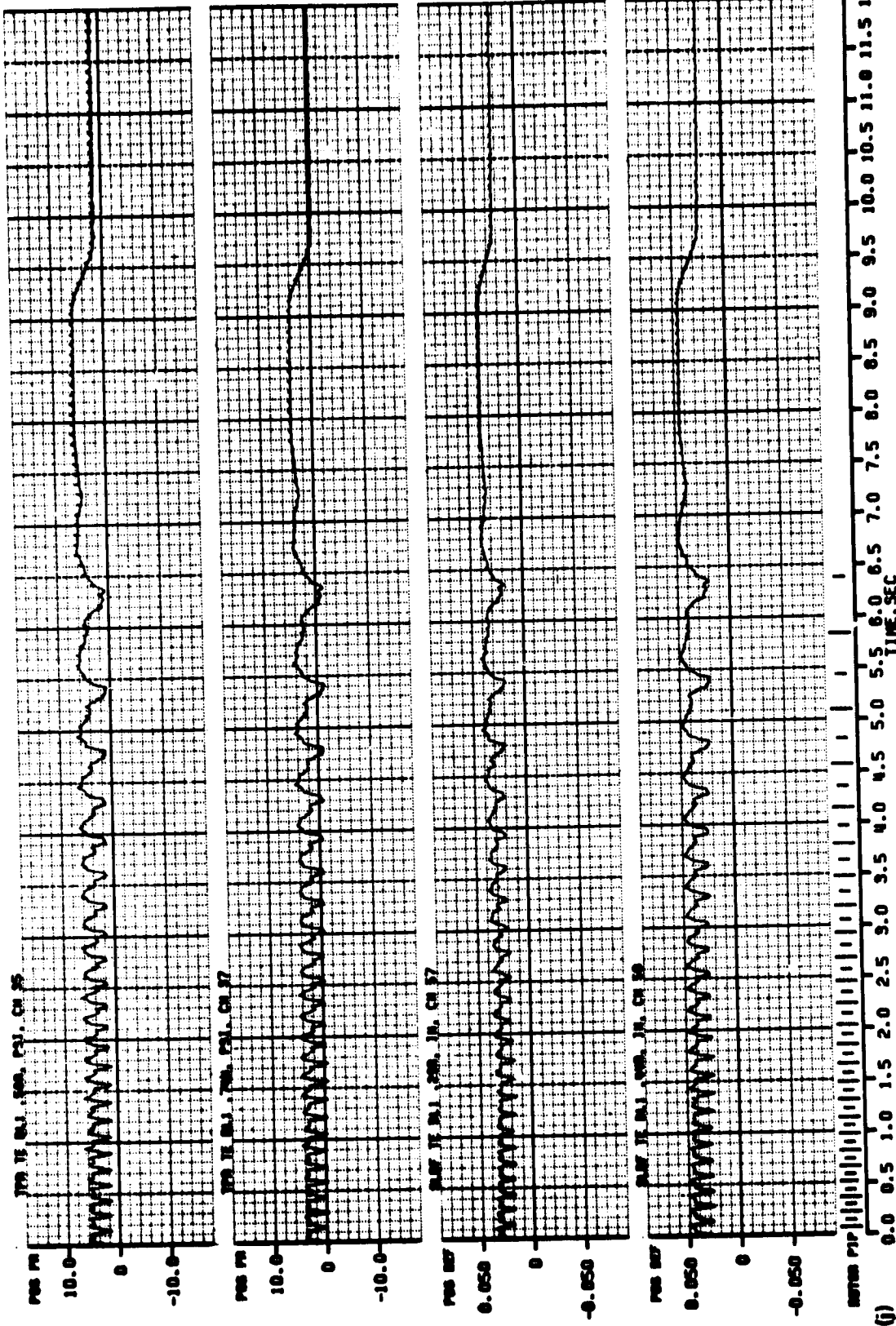


Figure 12.- Continued.

X-MING 40180 MT 180X CONV MODE STOP ALF=2 TH0--5 PP=7 X2P=-1
 TEST 539 RUN 43 POINT 4

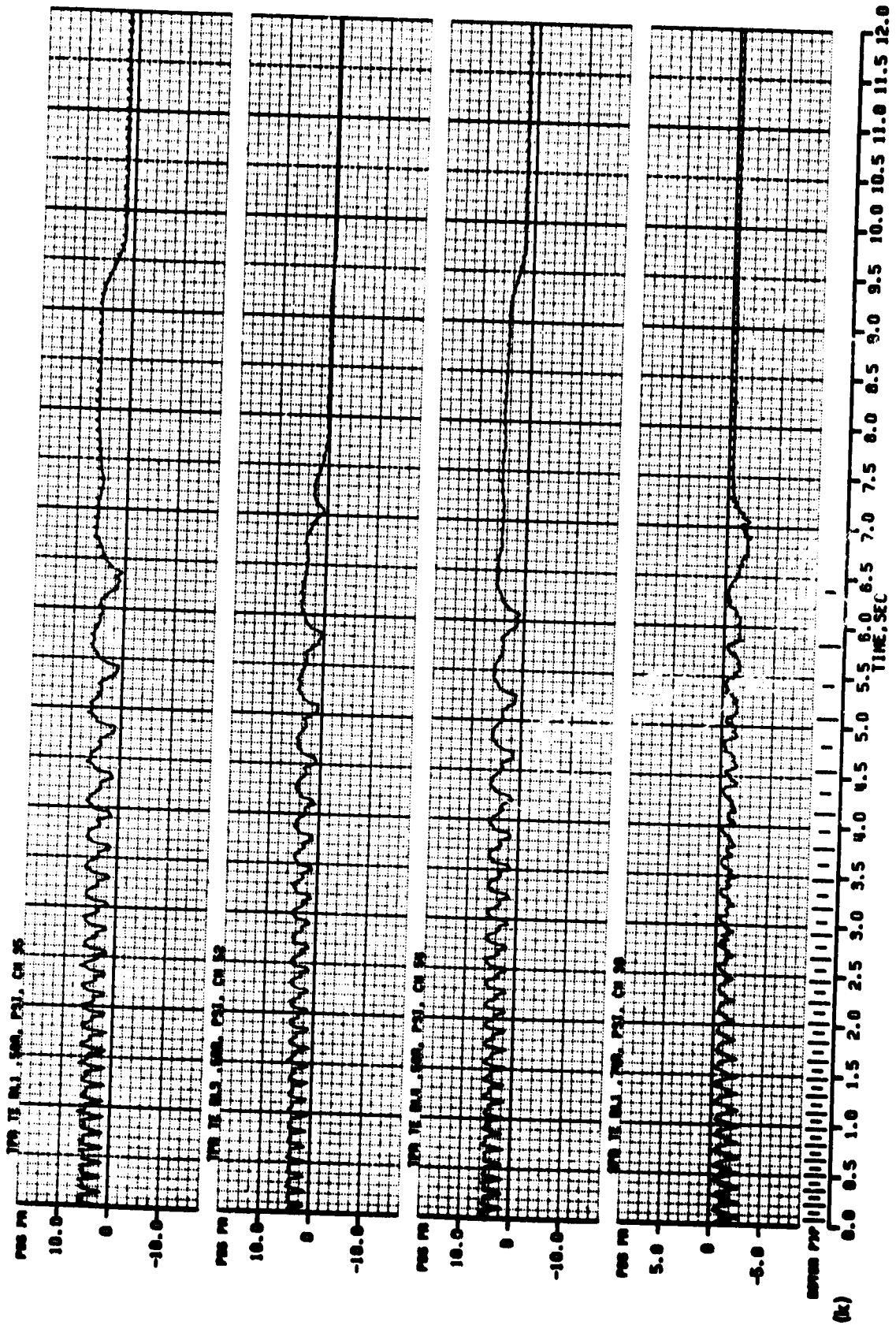


Figure 12.- Continued.

X-NING 00100 NT 100K CONV MODE STOP ALF=2 TH0=-5 PP=7 X2P=-1

TEST 539 RUN 43 POINT 4

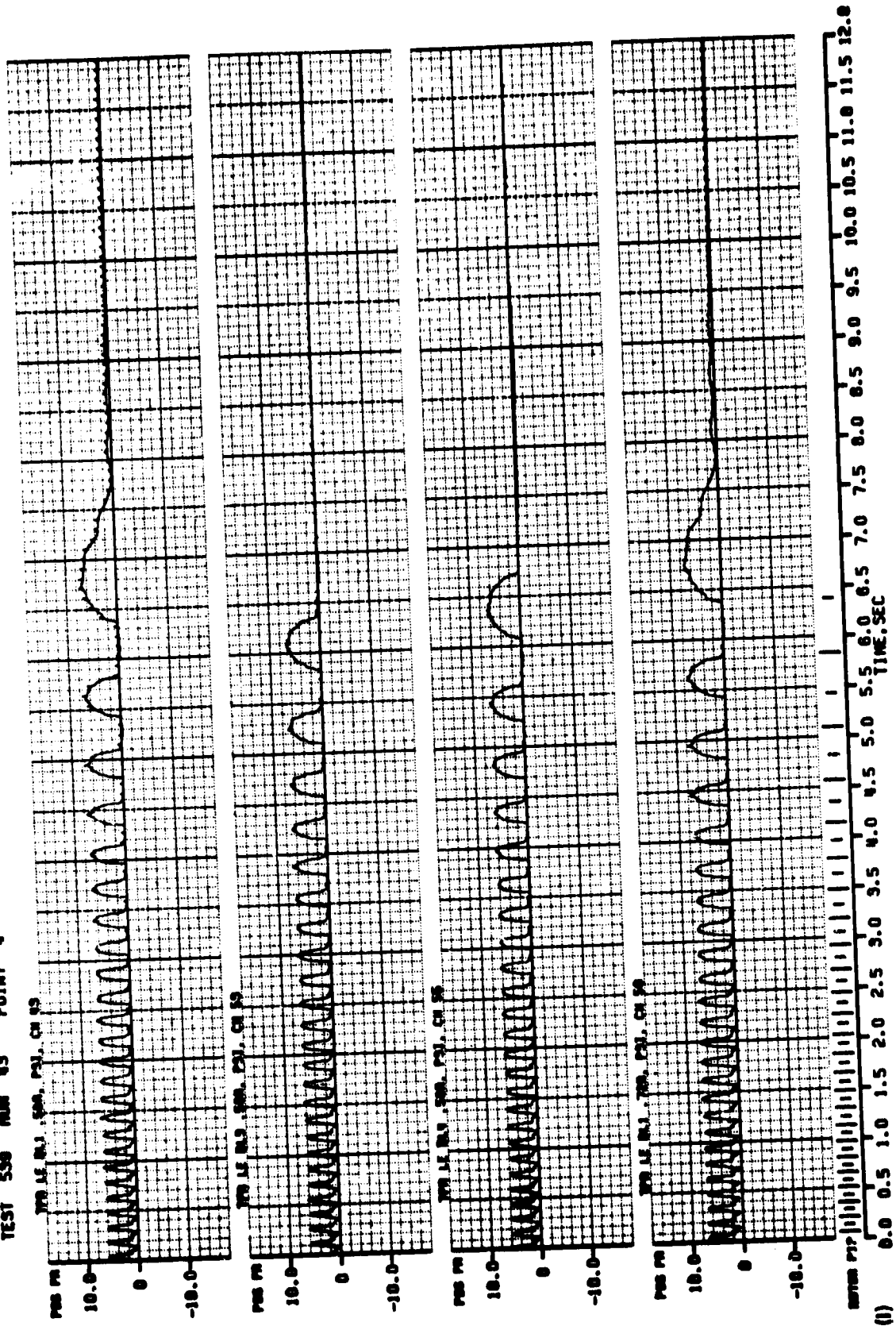
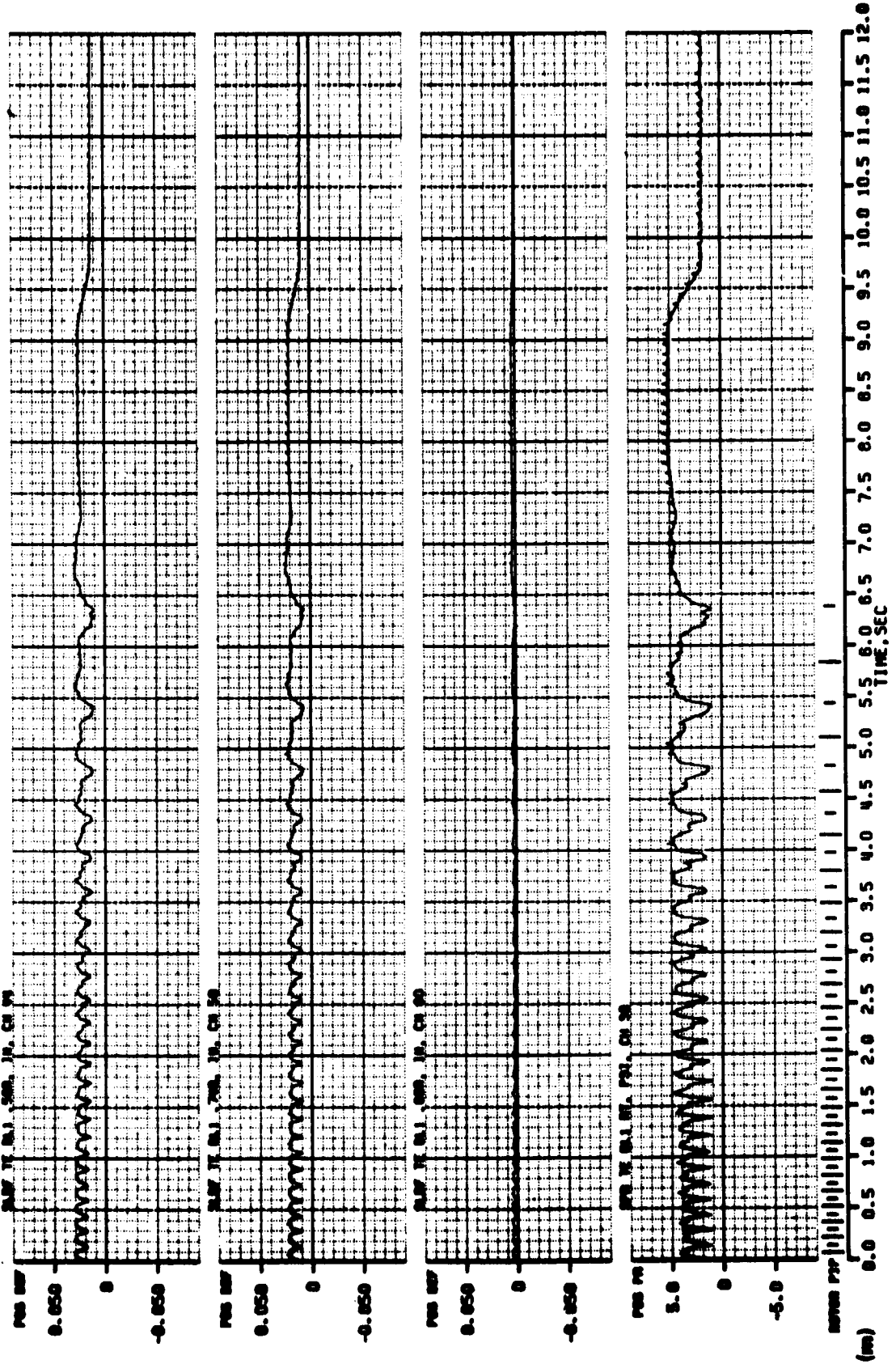


Figure 12.- Continued.

X-RING 40000 WT 100K CONV MODE STOP ALF-2 THO-5 PP-7 X2P--1

TEST 530 RUN 43 POINT 4



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Figure 12.- Concluded.

X-WING 40X80 MT 180K CONV MODE START ALF=2 THD=-4 PP=7 X2P=-

TEST 539 RUN N3 POINT 6

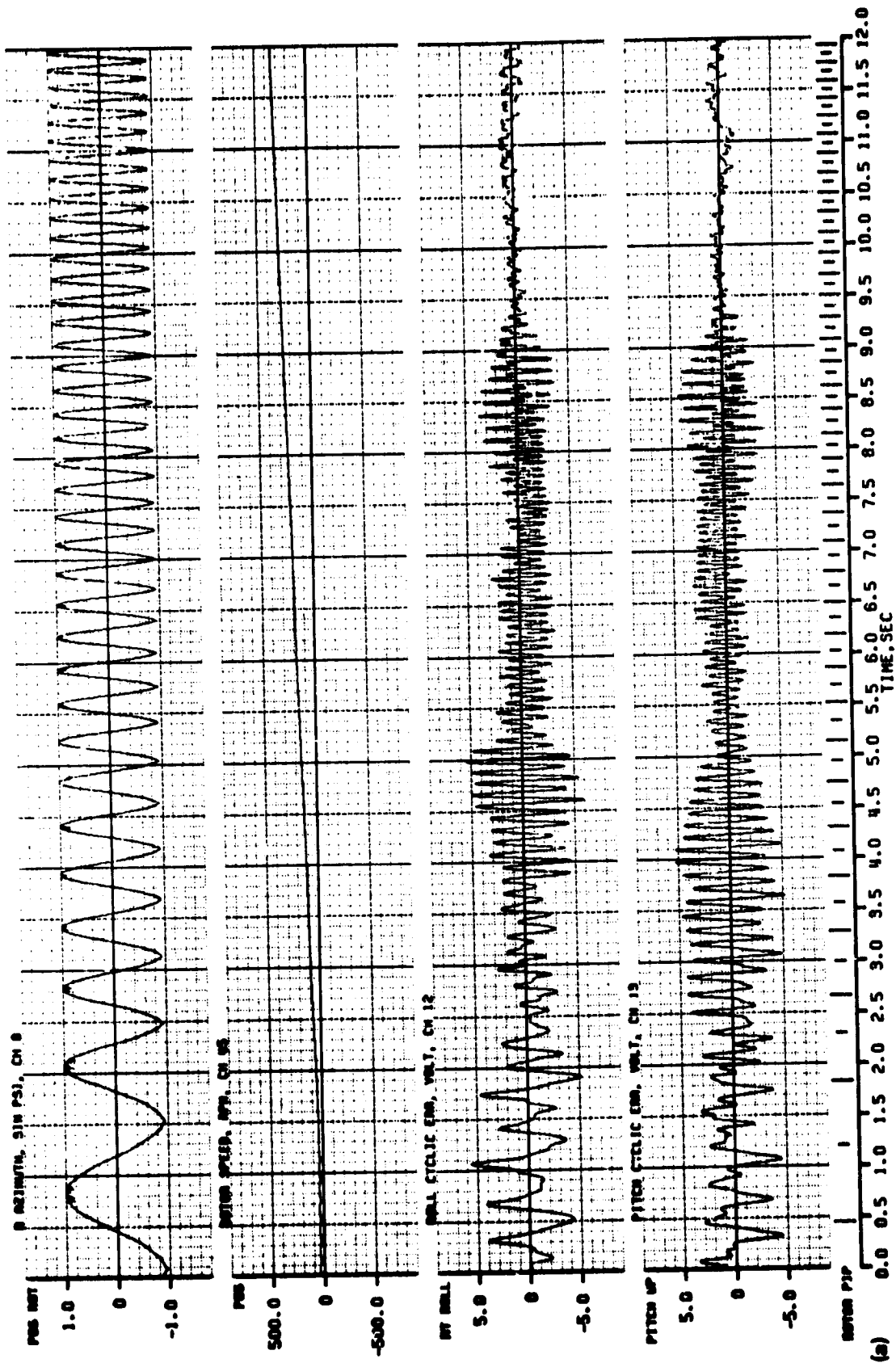


Figure 13.- Time history of run 43, data point 6, rotor transient from fixed-wing to rotary wing.

X-RING 40160 MT 180X CONV MODE START ALF=2 TH0=N PP=7 X2P=-
 TEST 539 RUN 03 POINT 6

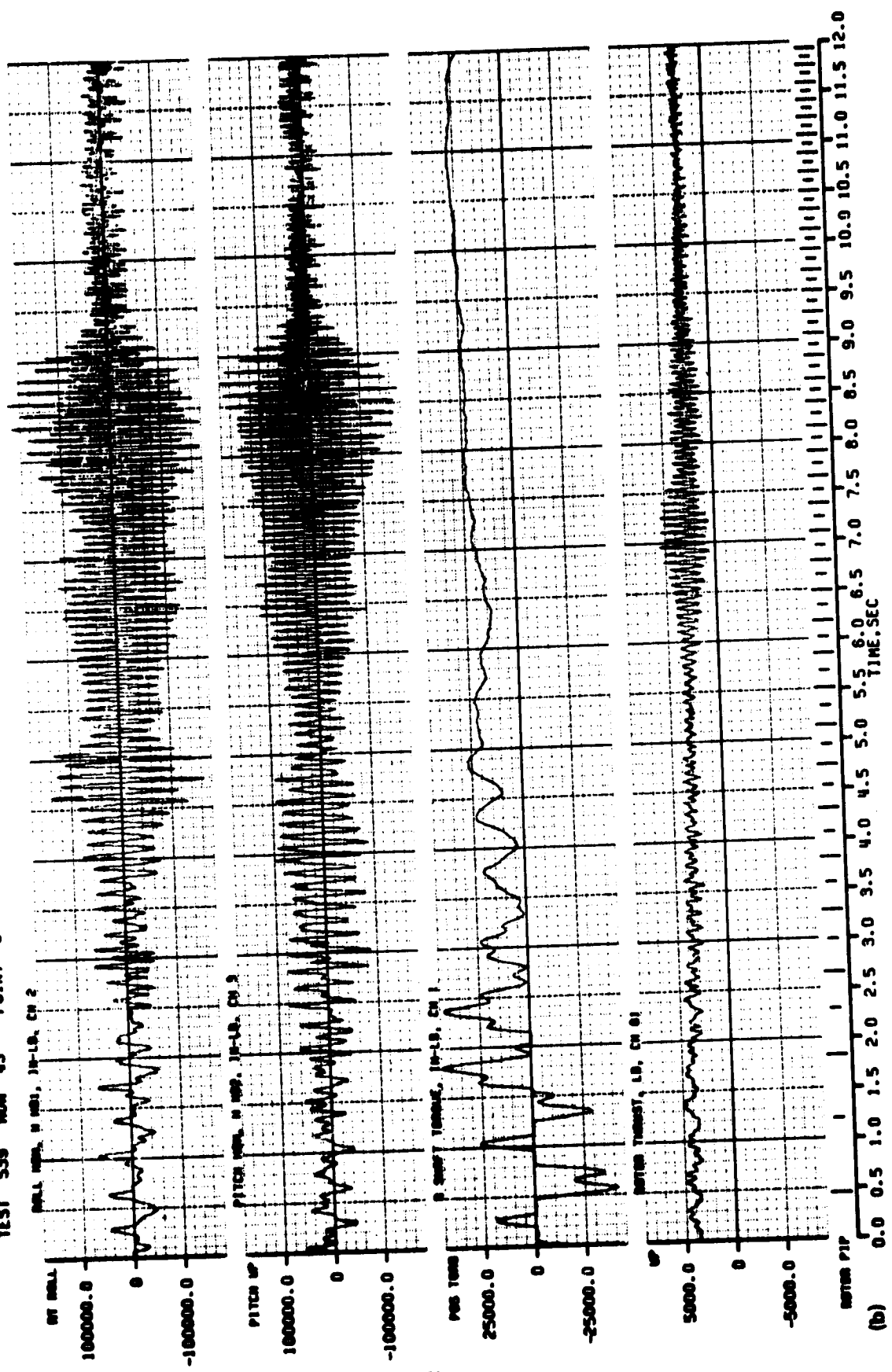


Figure 13.- Continued.

X-MING 40X60 WT 180X CONV MODE START ALF=2 TH0=4 PP=7 X2P=-
 TEST 539 RUN N3 POINT 6

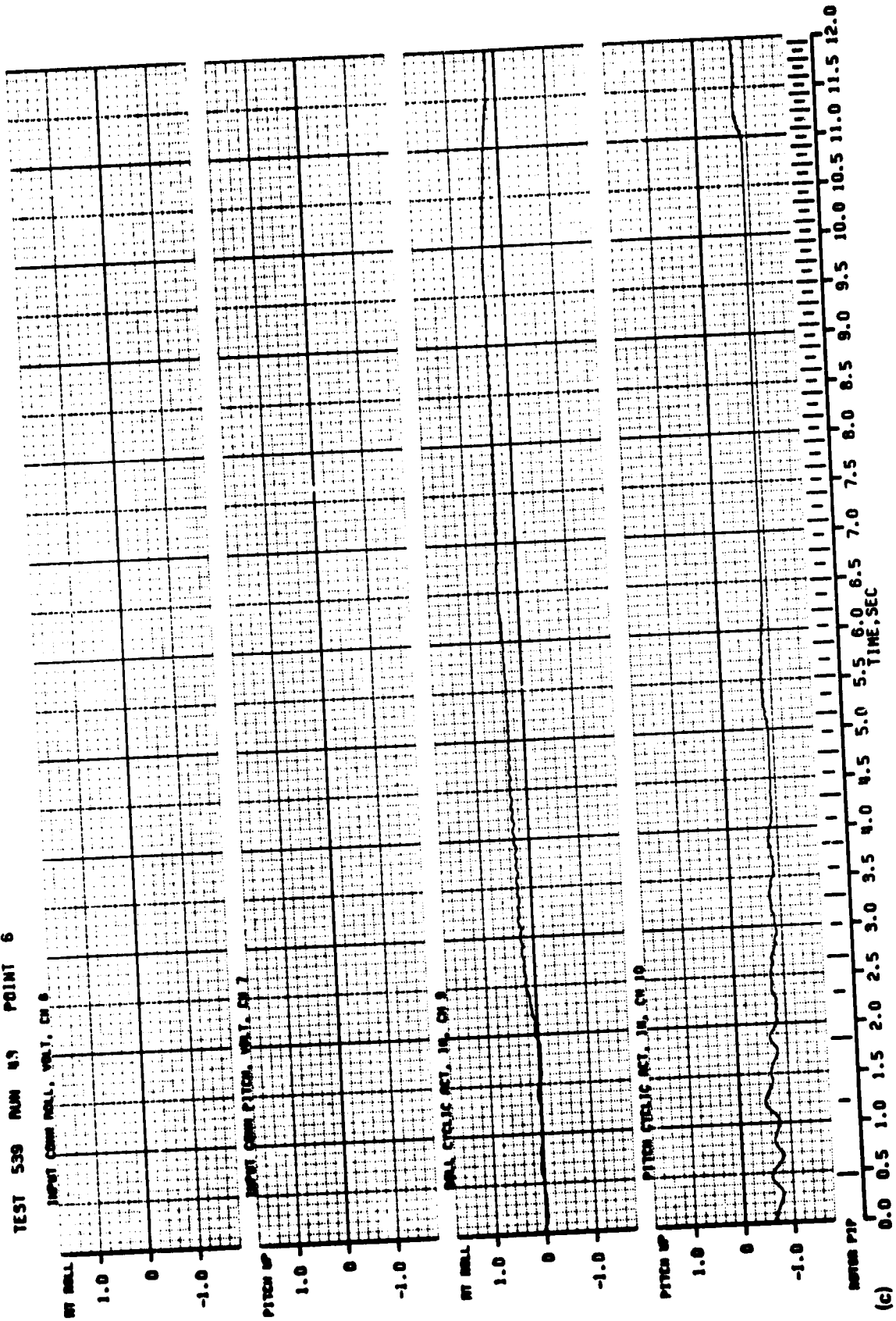


Figure 13.- Continued.

X-RINGS NOISE WT 180K COMV MODE START ALF=2 TH0=-4 PP=7 X2P=-
 TEST 530 RUN 05 POINT 6

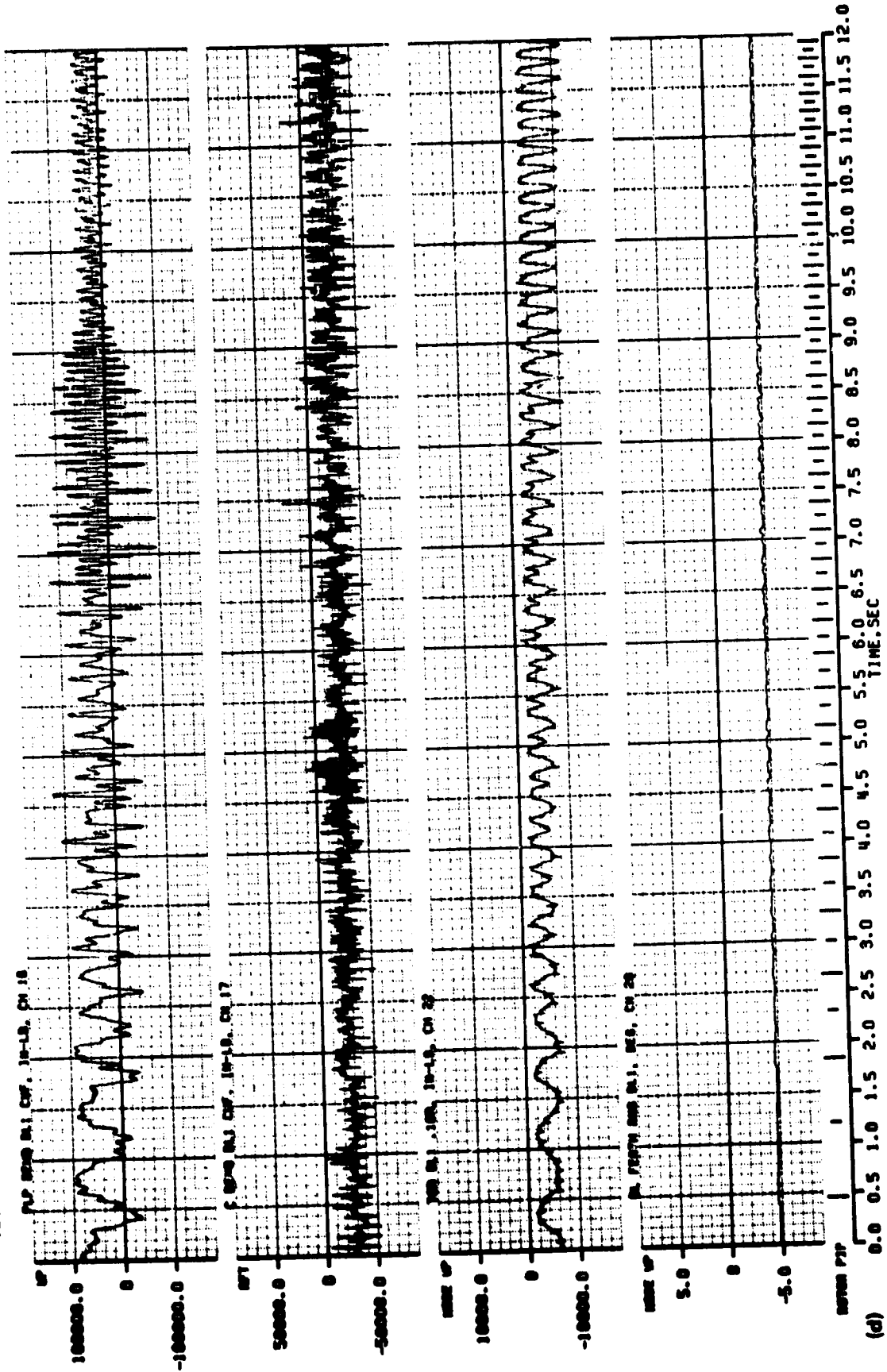


Figure 13.- Continued.

X-7JMS 40180 WT 180K CONV MODE START ALF-2 TH0--N PP-7 X2P--

TEST 538 RUN 43 POINT 6

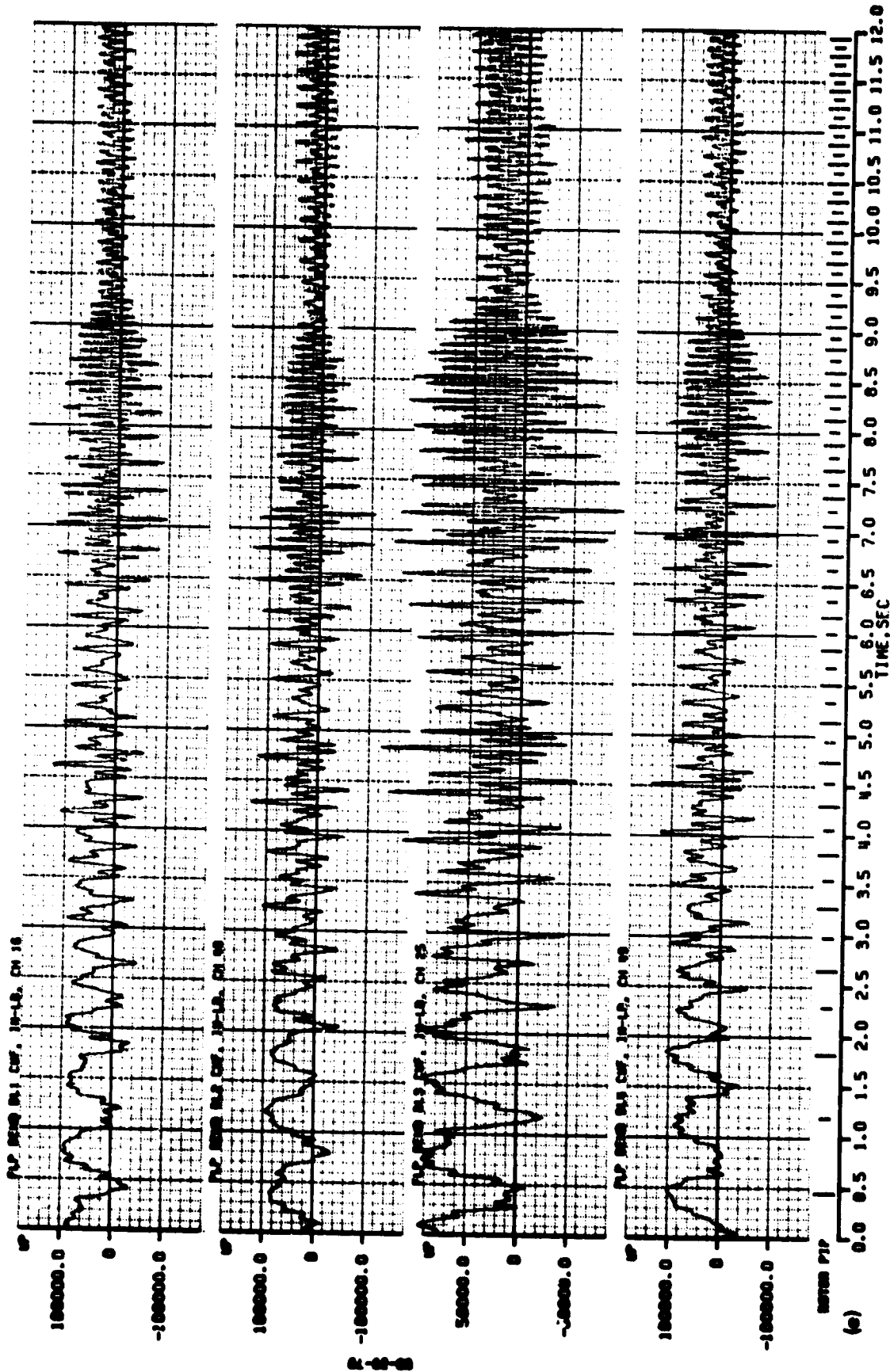
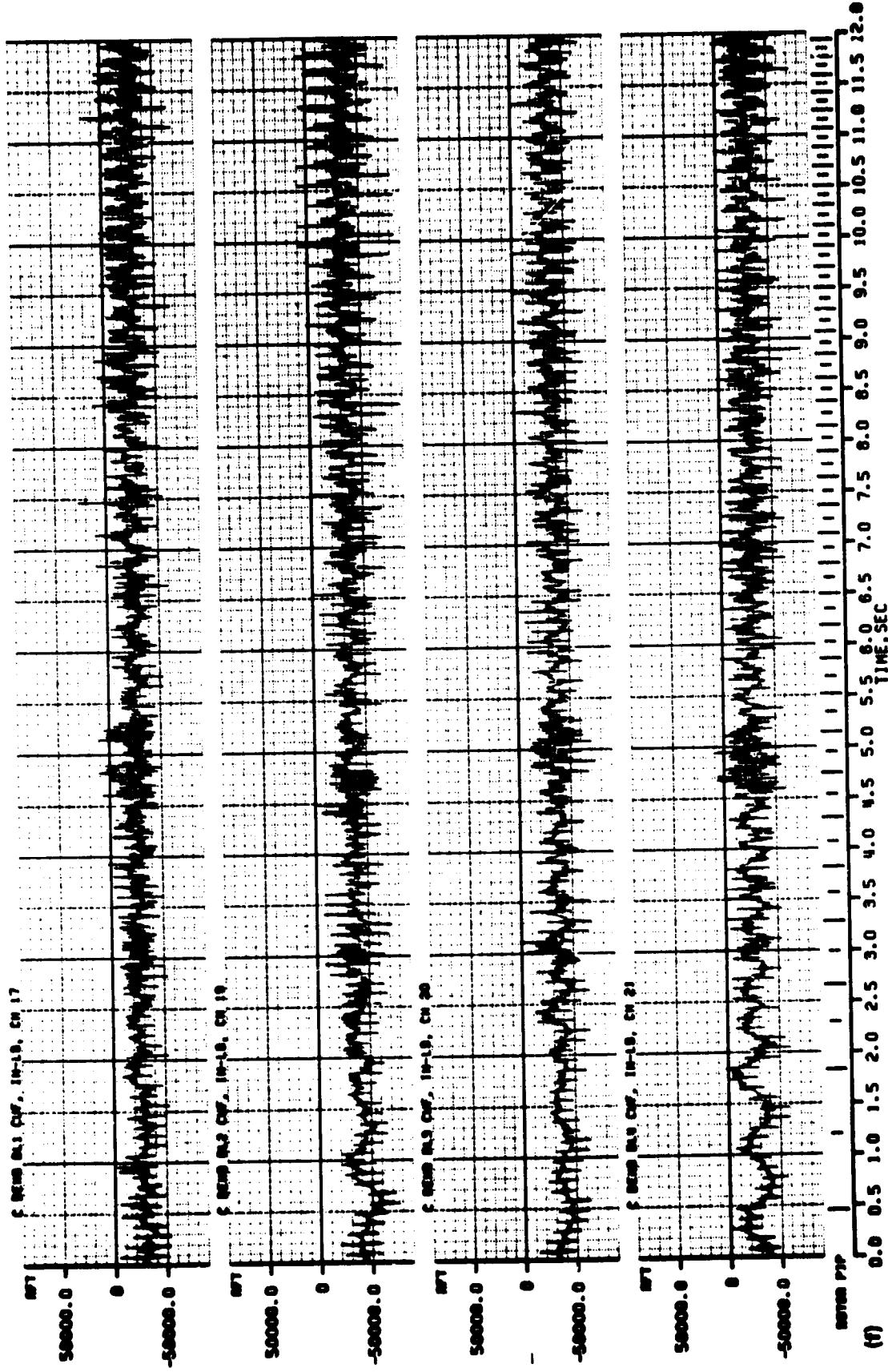


Figure 13.- Continued.

K-MING 40180 MT 180K CONV MODE START ALF=2 TH0=-4 PP=7 X2P=-
TEST 539 RUN 45 POINT 6



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Figure 13.- Continued.

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X-NING 40100 MT 180K CONV MODE START ALF=2 TMO=8 PP=7 X2P=-
 TEST 539 RUN 43 POINT 6

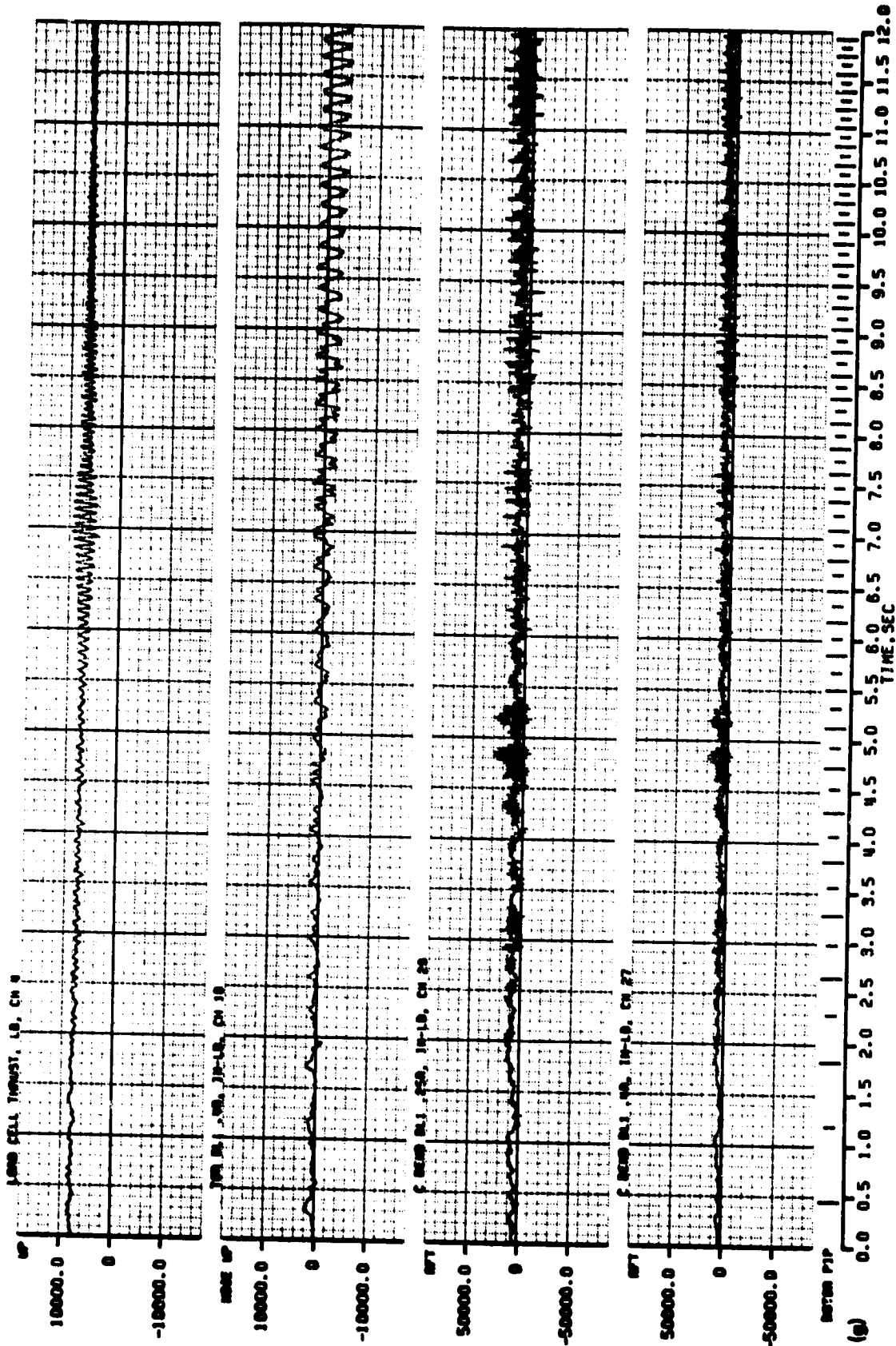


Figure 13.- Continued.

X-MING 40100 WT 100X CONV MODE START ALF-2 TMO--4 PP-7 X2P--
 TEST 530 RUN 43 POINT 6

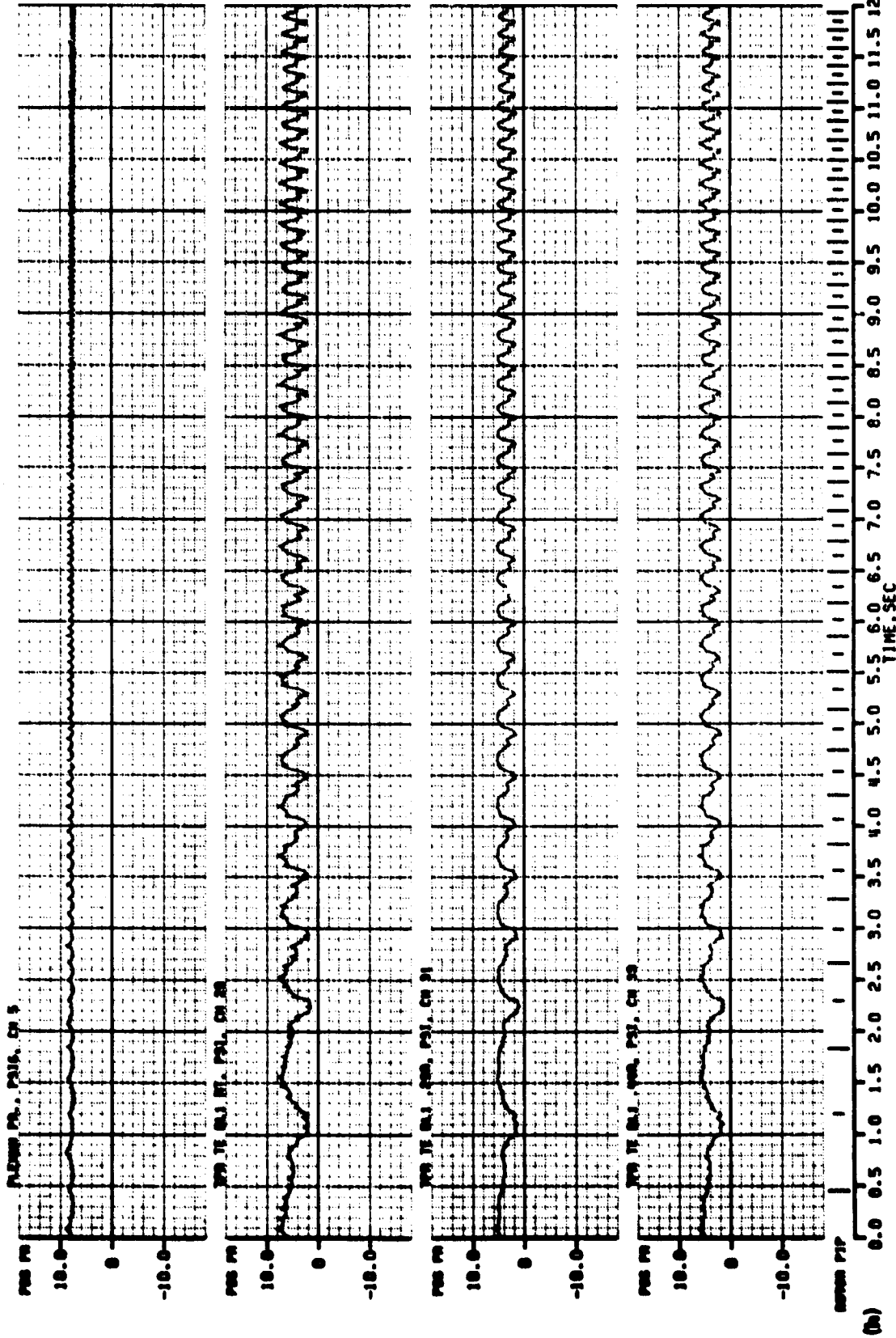


Figure 13.- Continued.

X-NING 40X80 NT 180K CONV MODE START ALF-2 TH0--4 PP-7 X2Ps--

TEST 530 RUN 43 POINT 6

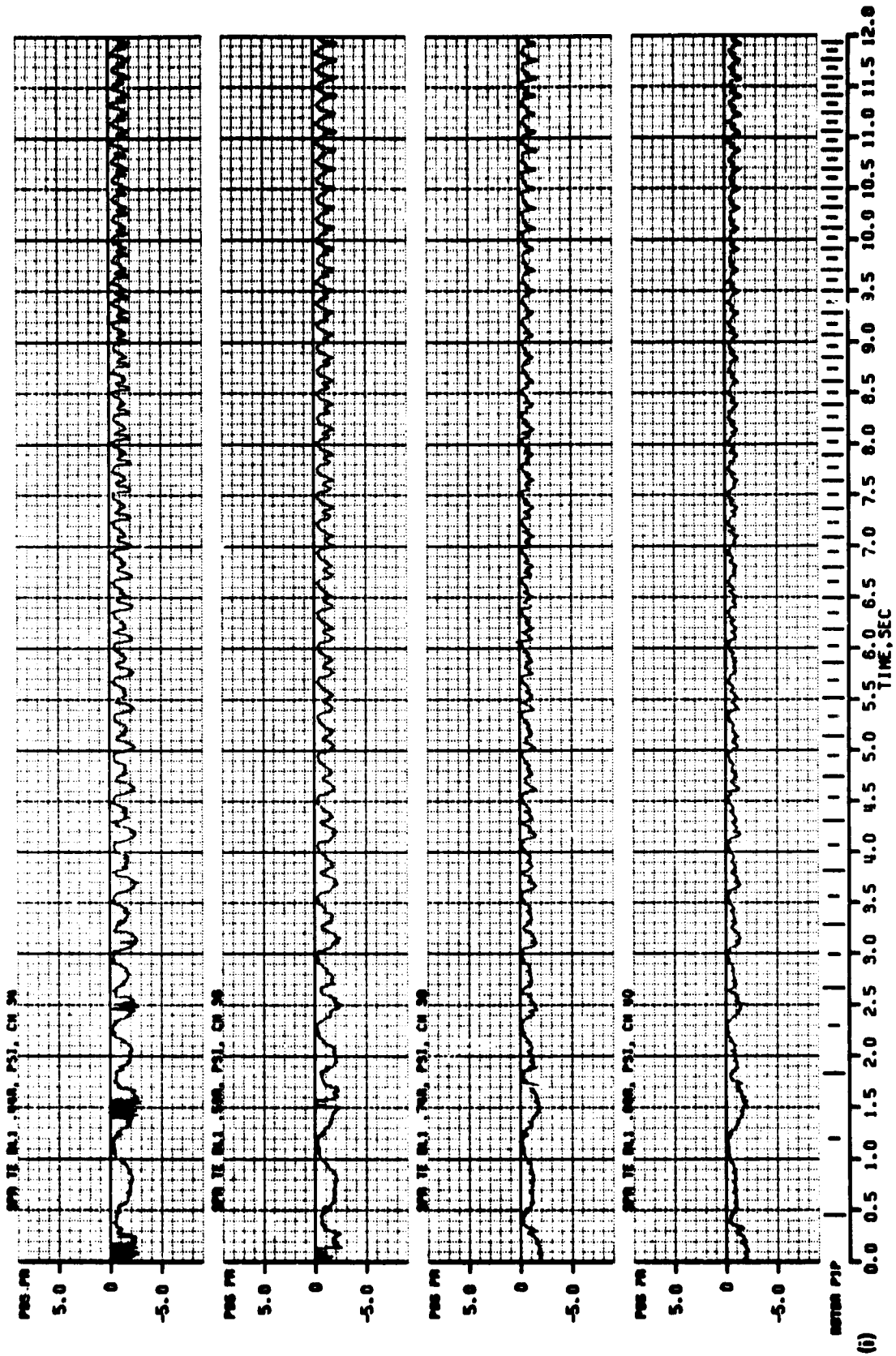
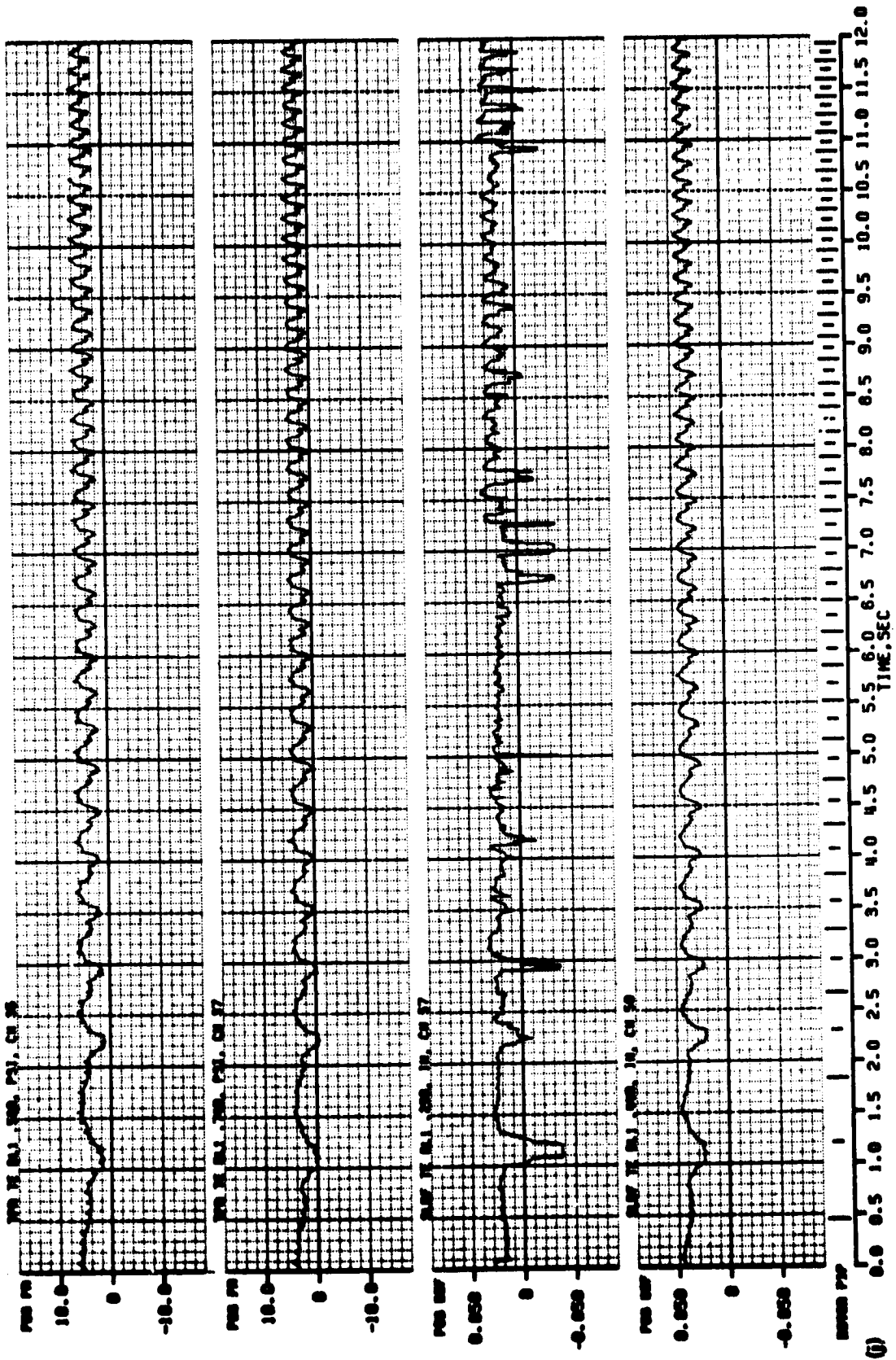


Figure 13.- Continued.

X-MING 40200 MT 100X CONV MODE START ALF-2 TMB--4 PP-7 X2P--

TEST 530 RUN 43 POINT 6



X-WING 40100 WT 180K CONV MODE START ALF-2 TH0--4 PP-7 X2P--

TEST 539 RUN 15 POINT 6

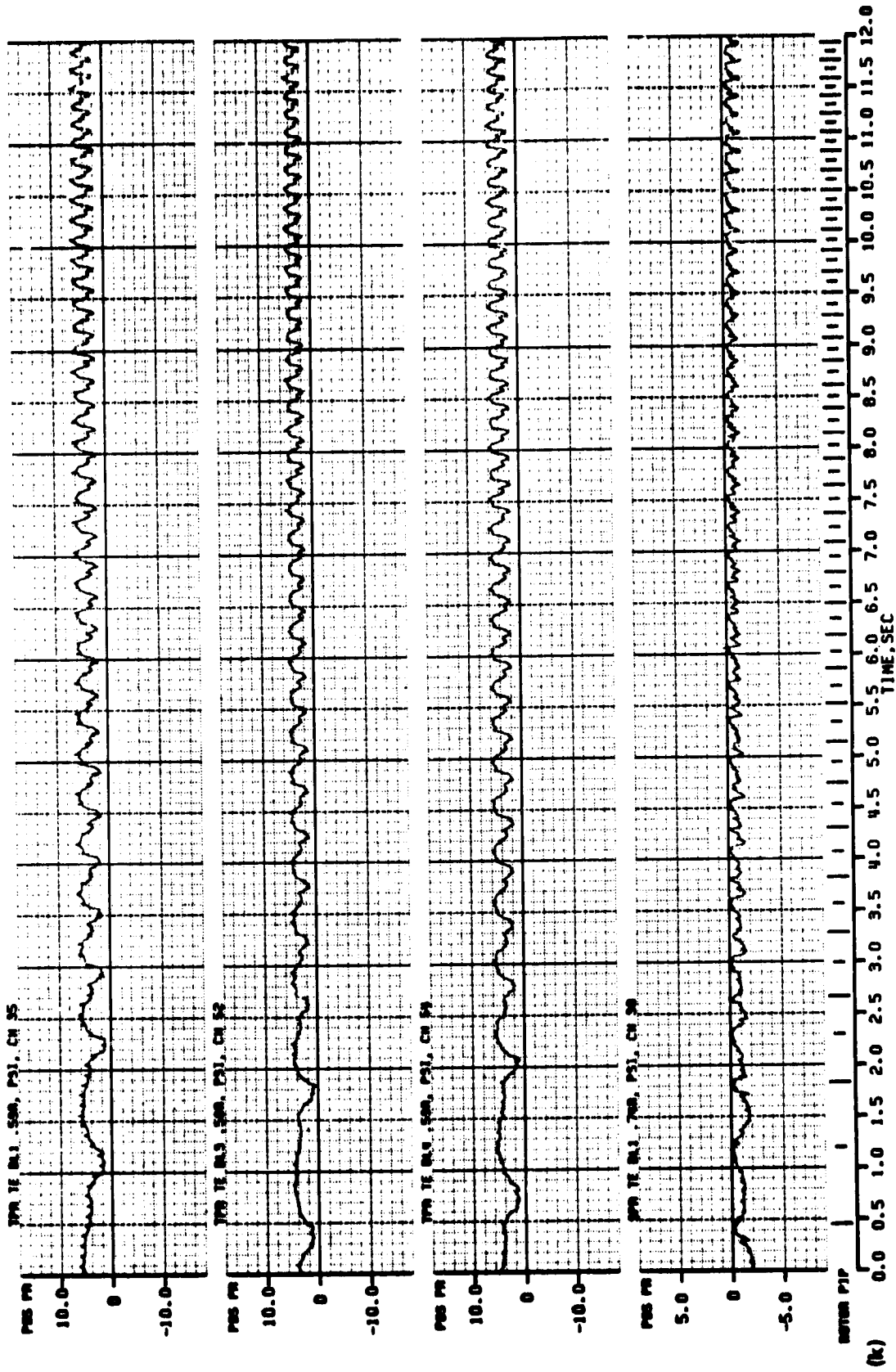


Figure 13.- Continued.

X-MING 40100 MT 100% CONV MODE START ALF=2 TH0=-N PP=7 X2P=-

TEST 539 RUN 43 POINT 6

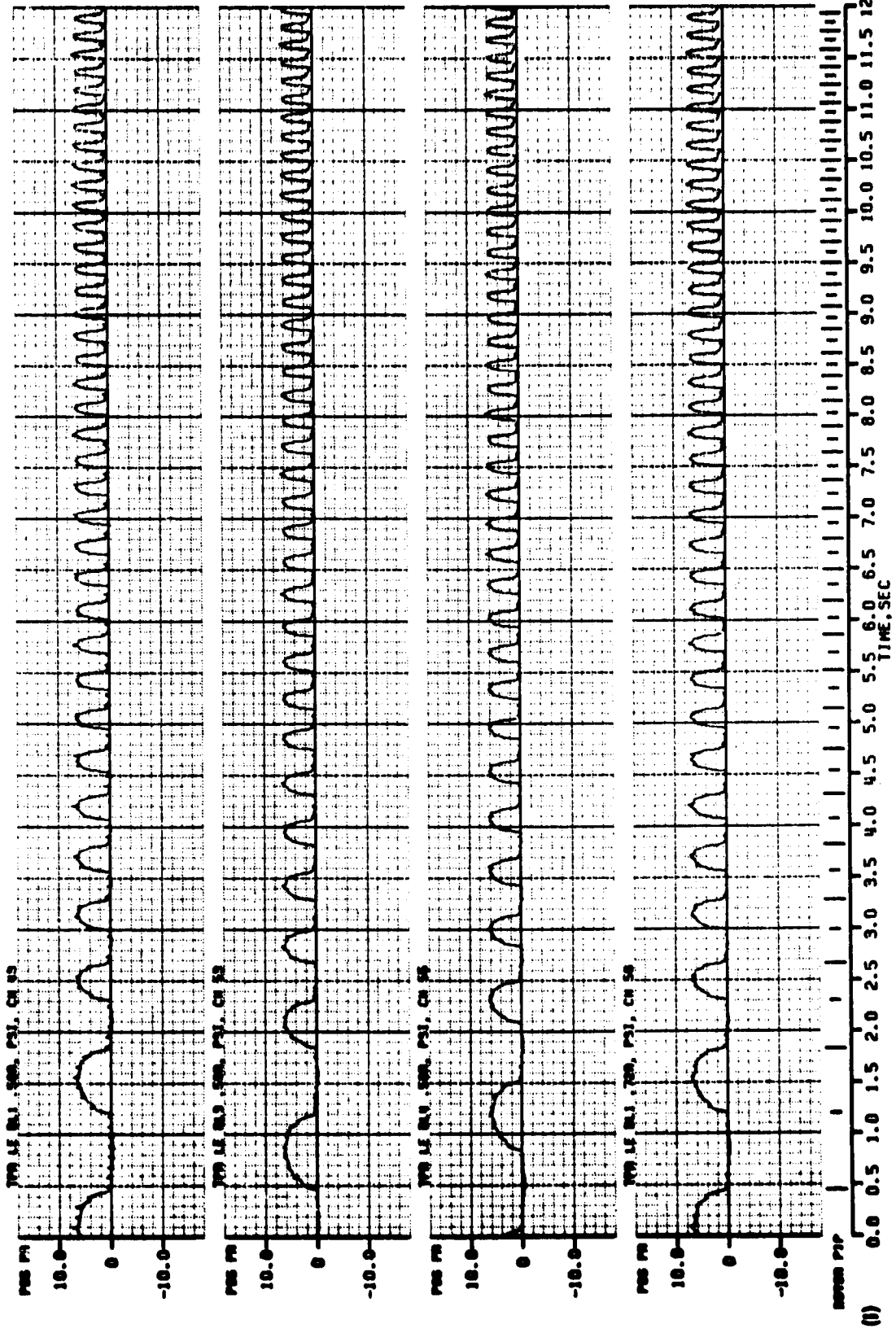


Figure 13.- Continued.

X-NING 40160 HT 180X CONV MODE START ALF=2 THO=-4 PP=7 X2P=-
 TEST 530 RUN 43 POINT 6

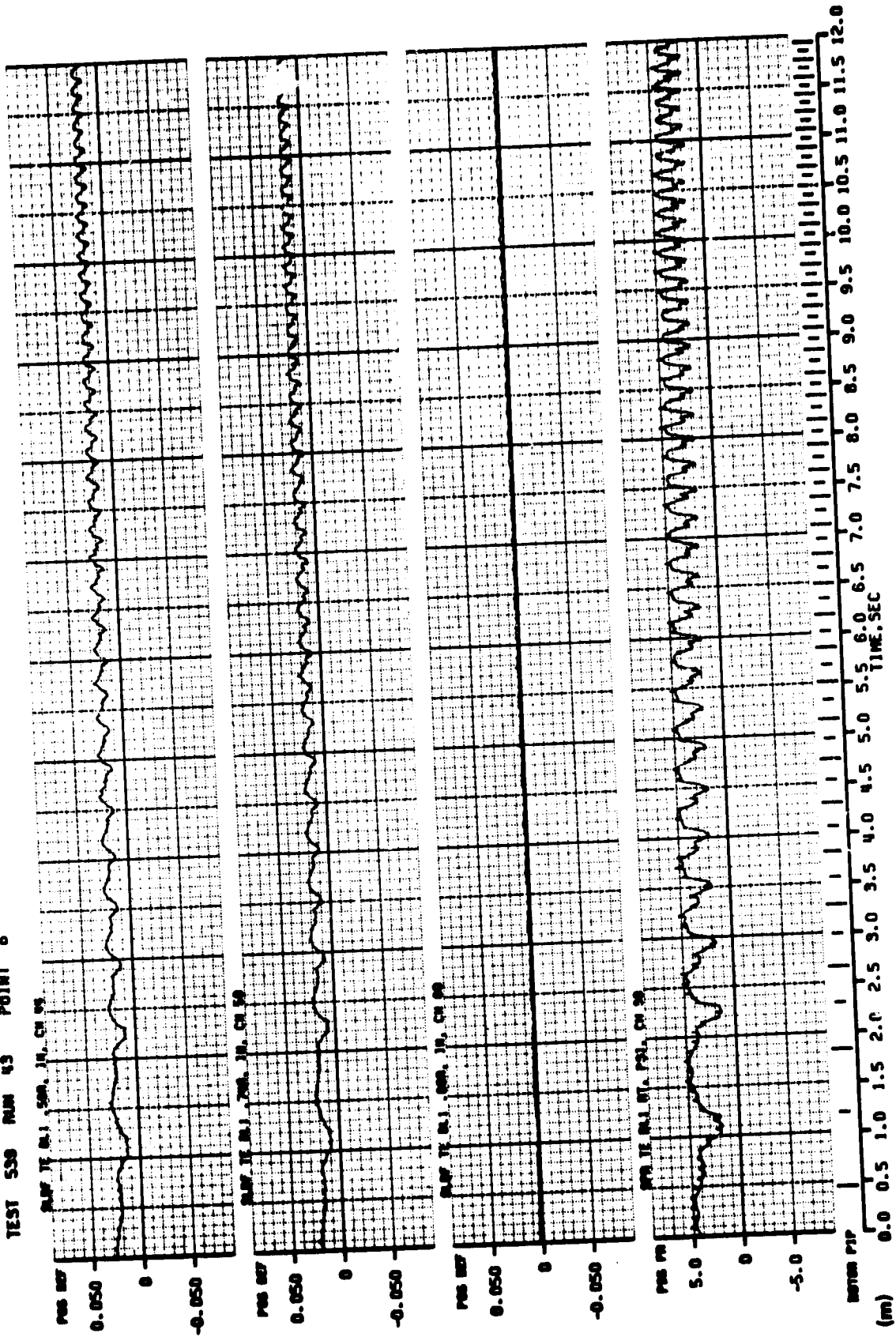


Figure 13.- Concluded.

X-WING 40260 NT 100K CONV MODE STOP ALF=2 THD=-5 PP=8 X2P=-1

TEST 539 RUN 43 POINT 7

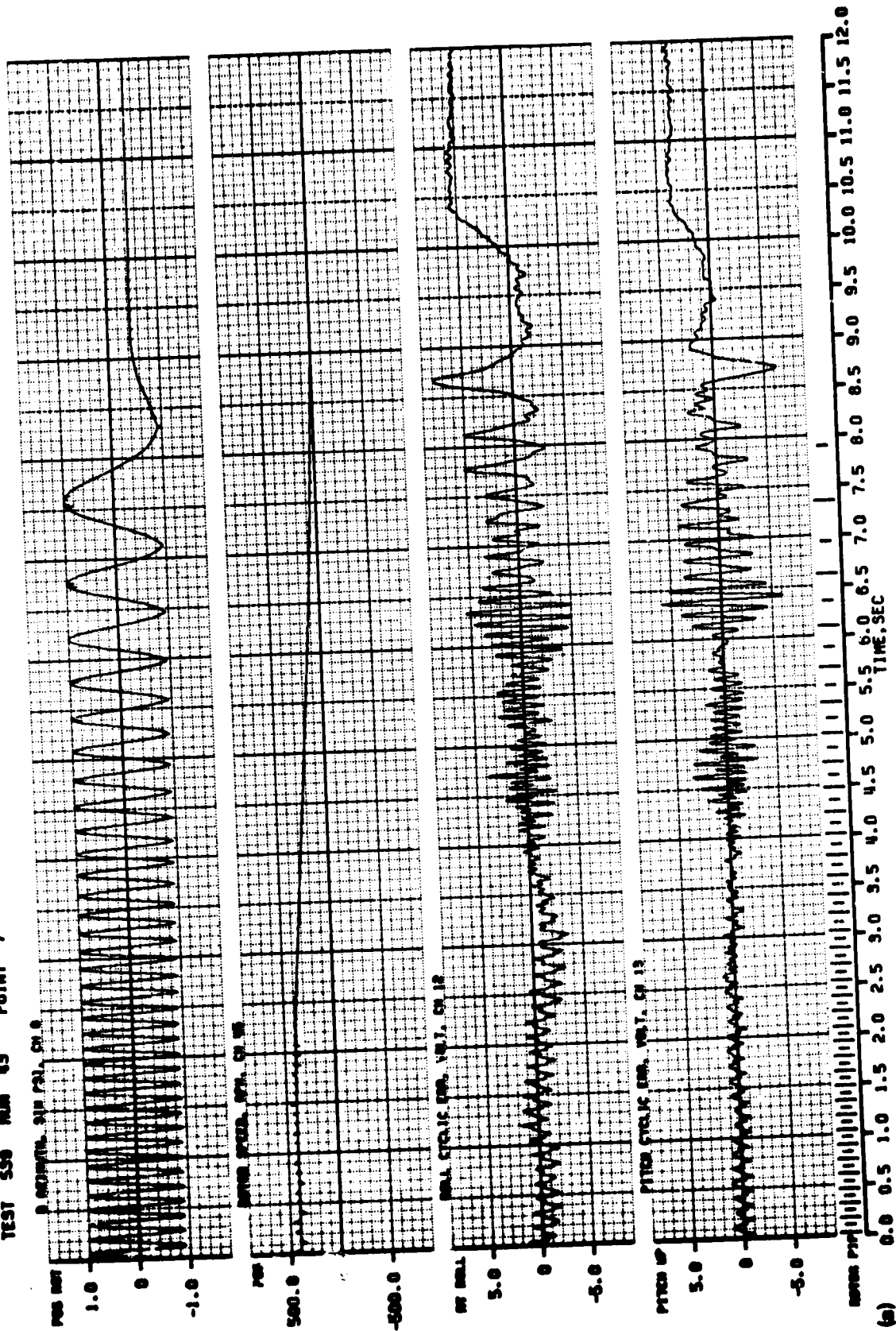


Figure 14.- Time history of run 43, data point 7, rotor transient from rotary wing to fixed-wing.

X-MING 40160 MT 180X CONV MODE STOP ALF=2 THD=-5 PP=8 X2P=-1

TEST 539 RUN 03 POINT 7

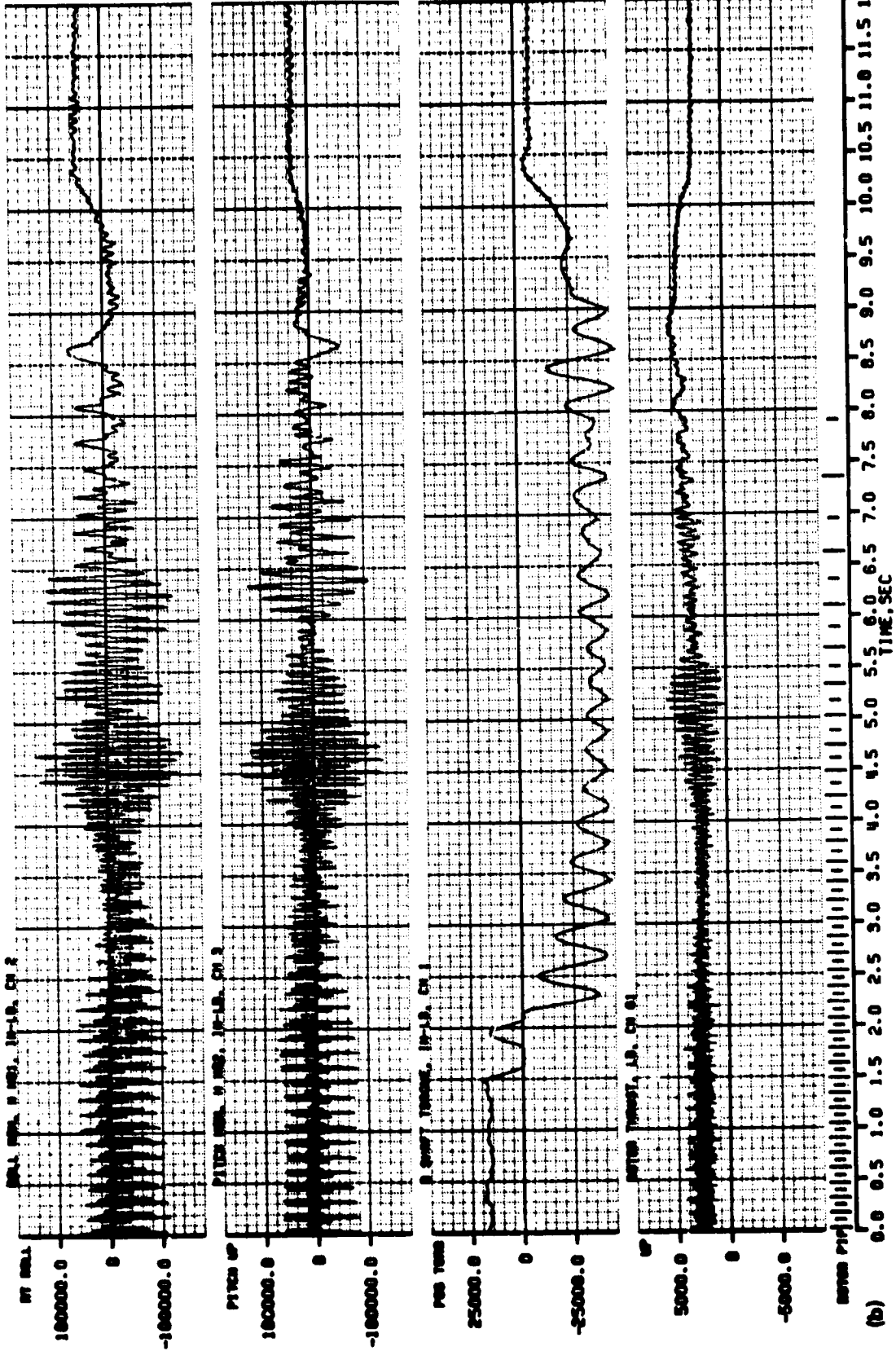
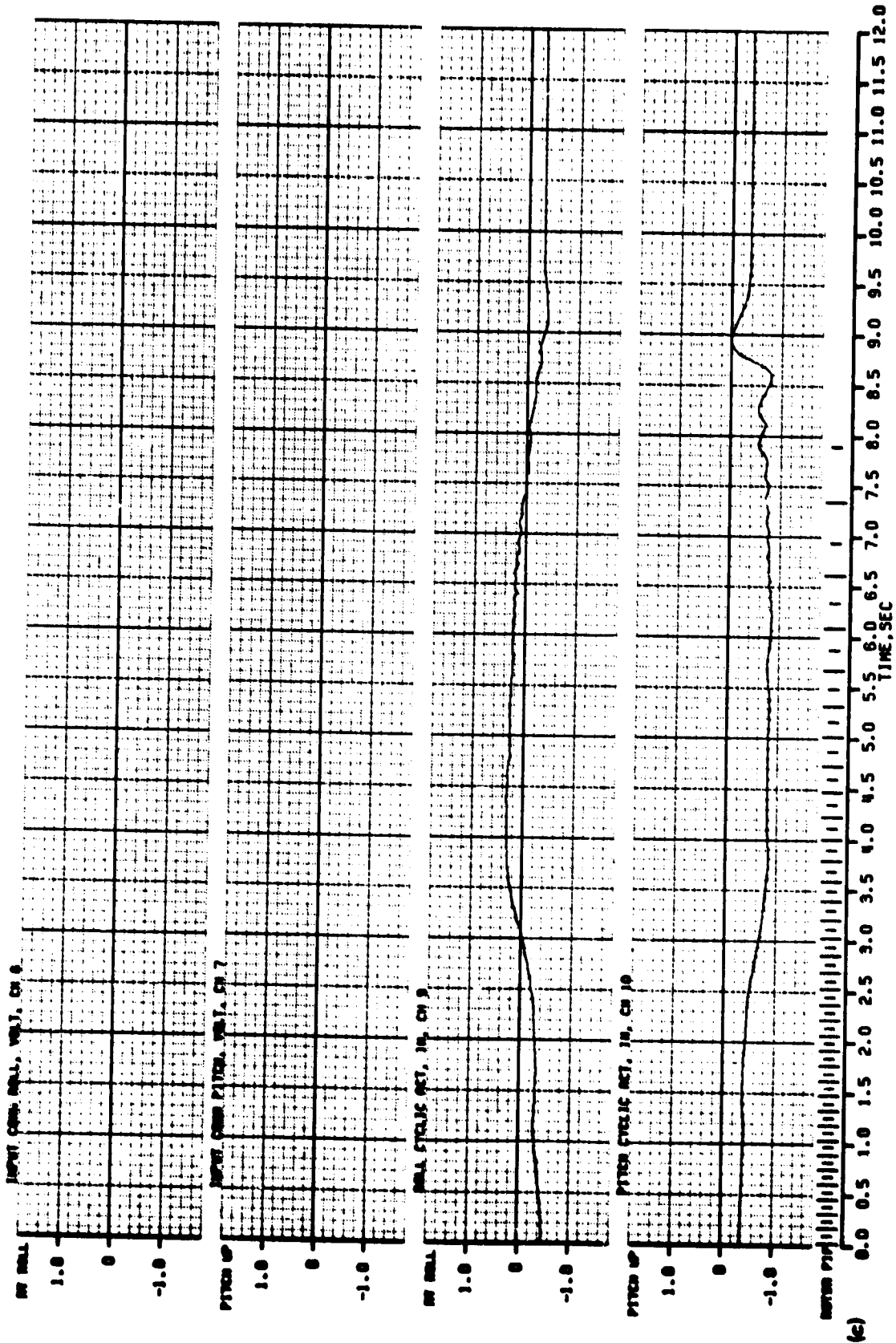


Figure 14.- Continued.

X-WING 40100 MT 180K CONV MODE STOP ALF=2 TH0--5 PP=8 X2P=-1

TEST 530 RUN 03 POINT 7



(c)

Figure 14.- Continued.

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2-MING 40100 WT 180X CONV MODE STOP ALF=2 TNO=5 PP=8 X2P=-1
 TEST 538 RUN 83 POINT 7

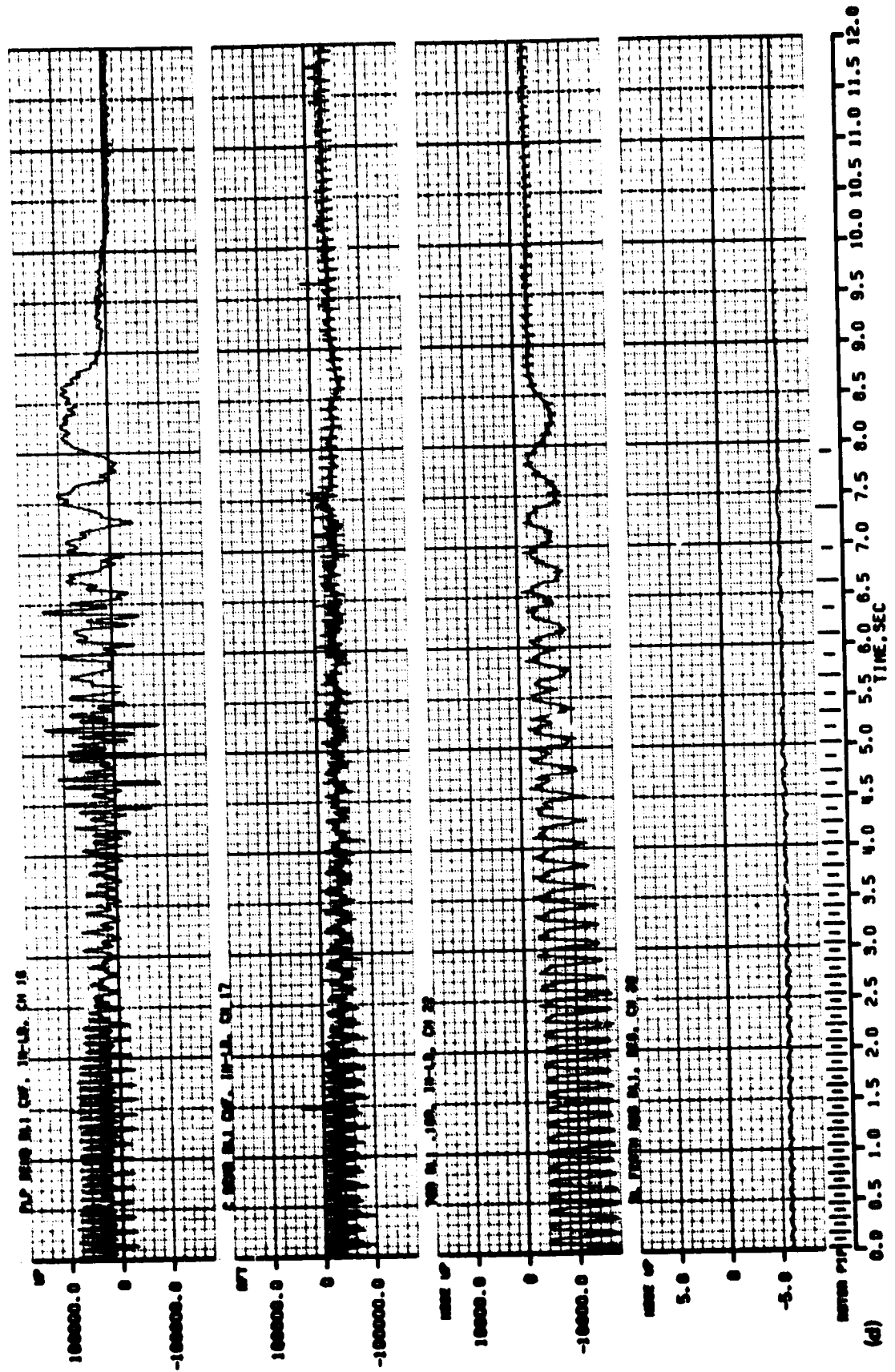


Figure 14.- Continued.

Z-MING 40100 MT 180K CONV MODE STOP ALF-2 THO--5 PP-8 X2P--1

TEST 530 RUN 43 POINT 7

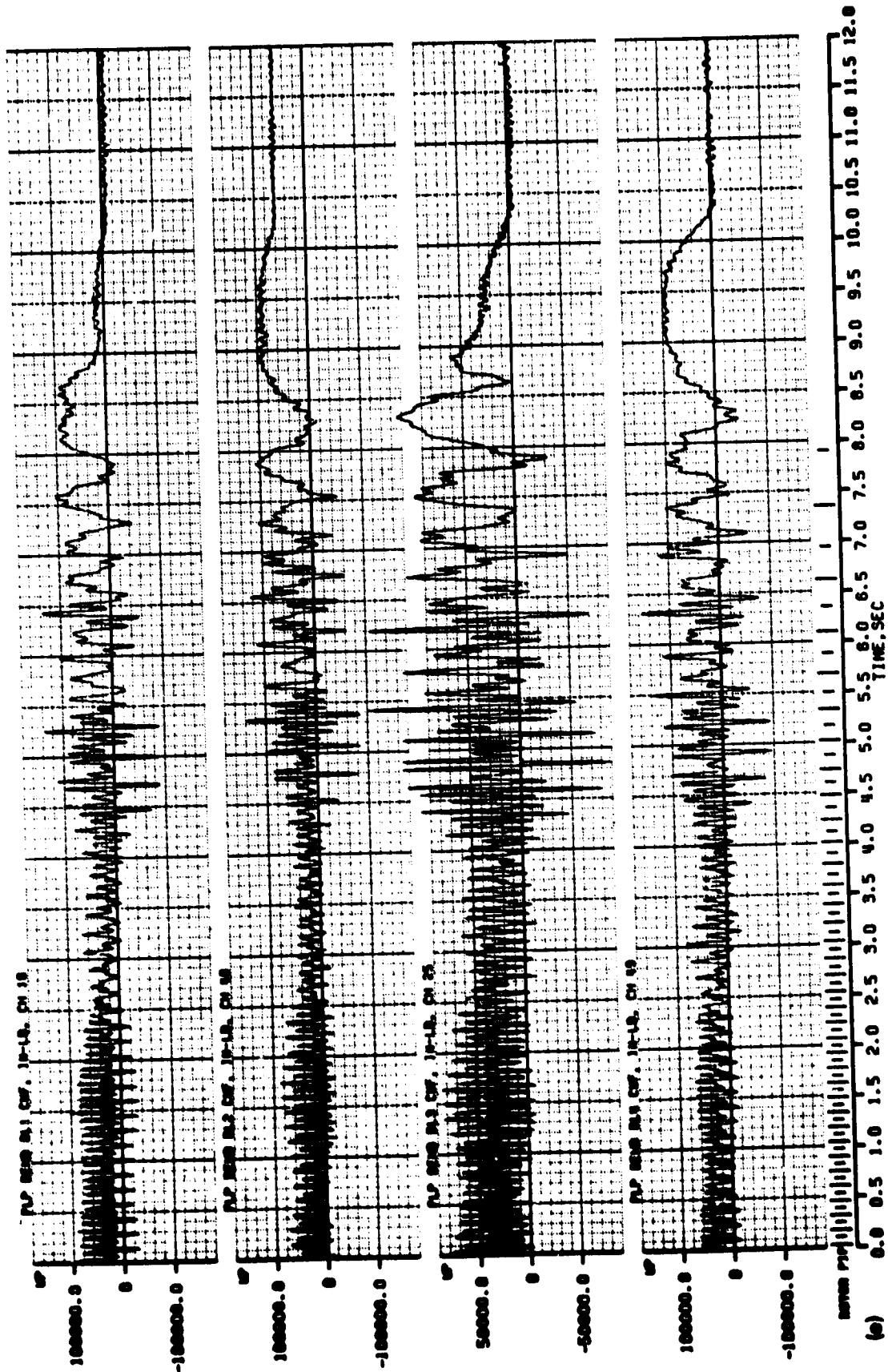


Figure 14. - Continued.

X-WING 40100 WT 180X CONV HOME STOP ALF=2 TH0=-5 PP=8 X2P=-1

TEST 538 RUN 93 POINT 7

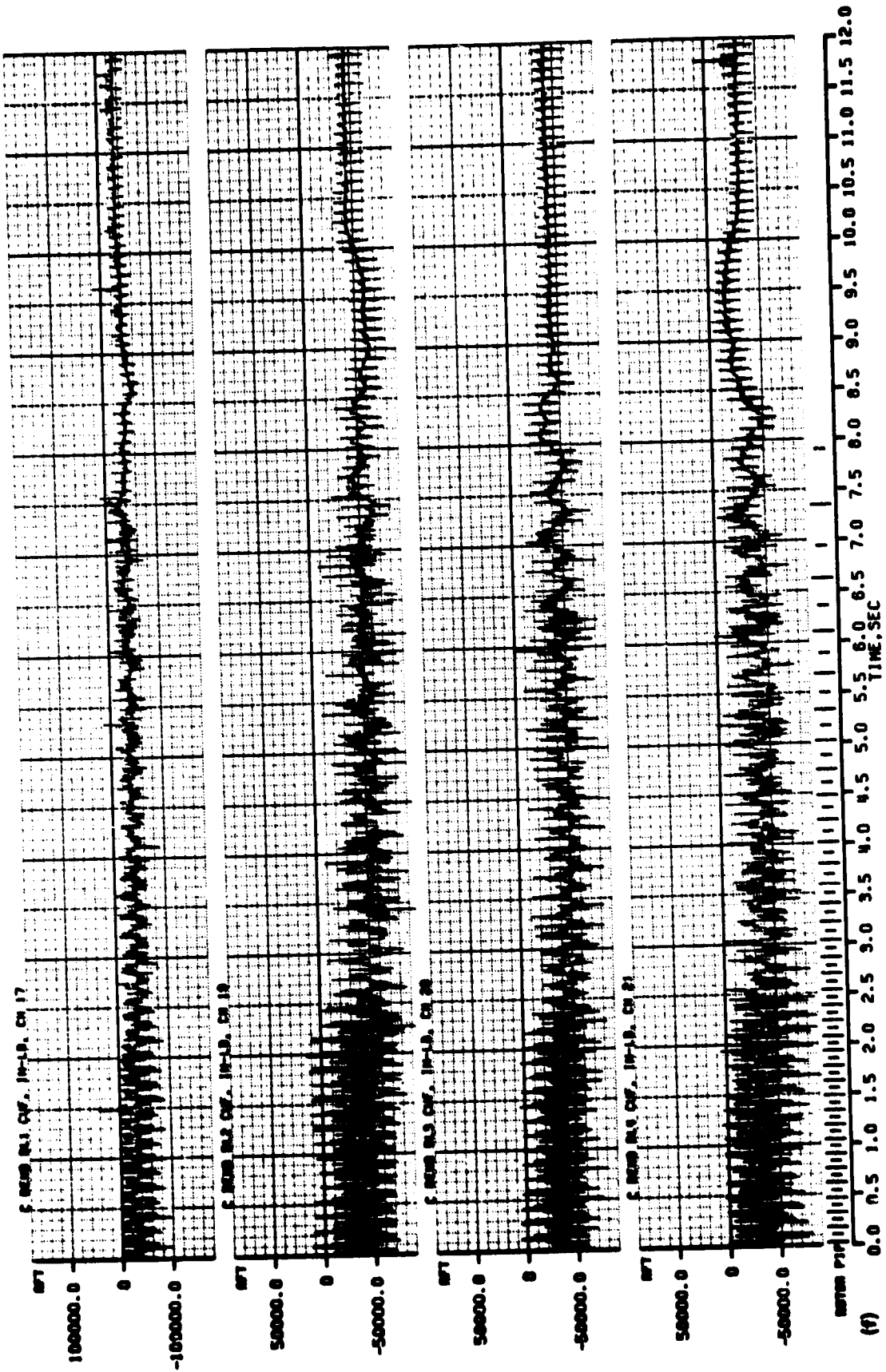


Figure 14.- Continued.

X-RING 40X00 MT 180X CONV MODE STOP ALF-2 TNO--5 PP-8 X2P--1

TEST 538 RUN 43 POINT 7

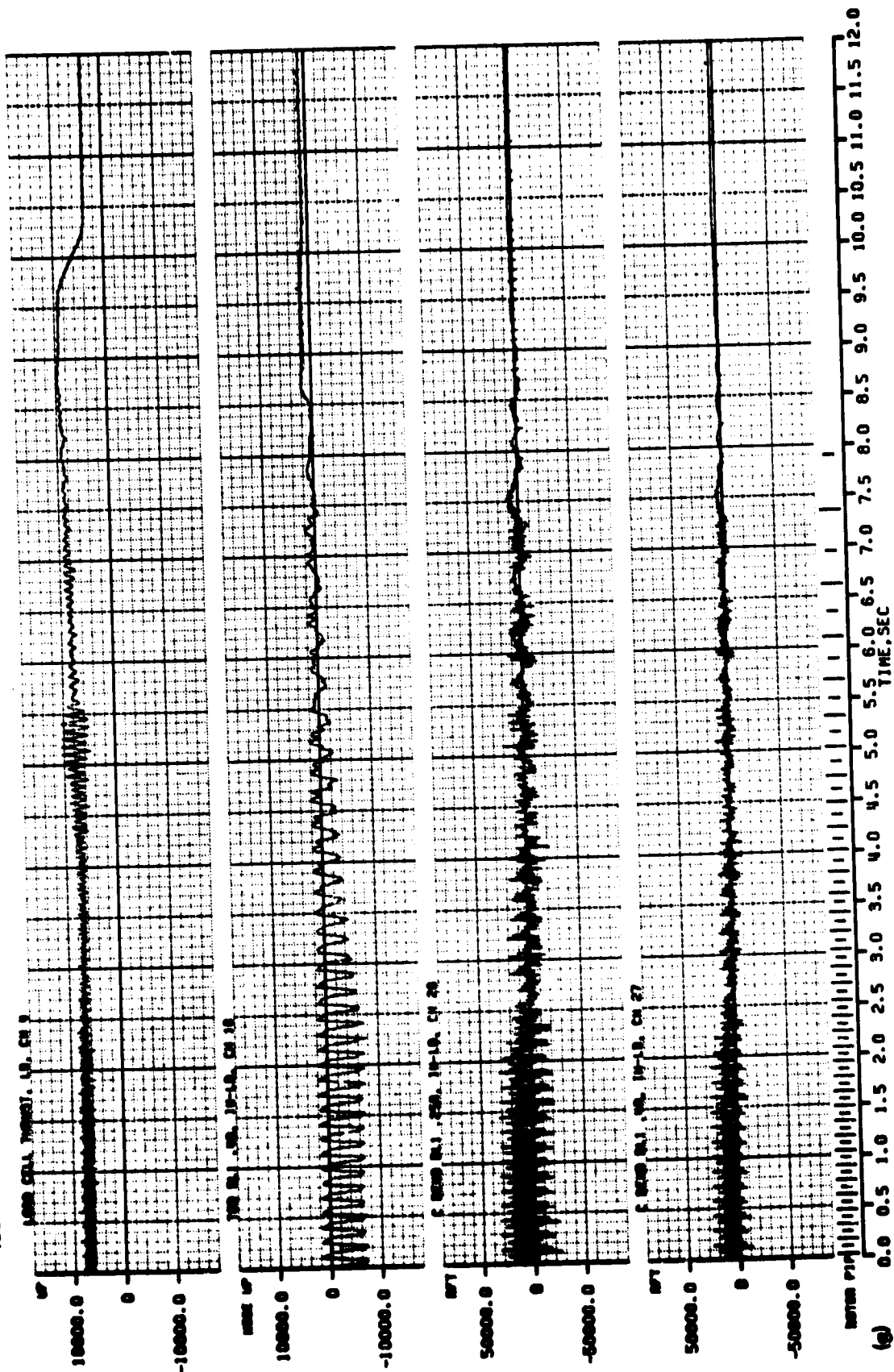


Figure 14.- Continued.

X-MING 40260 MT 180K CONV MODE STOP ALF=2 TH0=-5 PP=8 X2P=-1

TEST 530 RUN 43 POINT 7

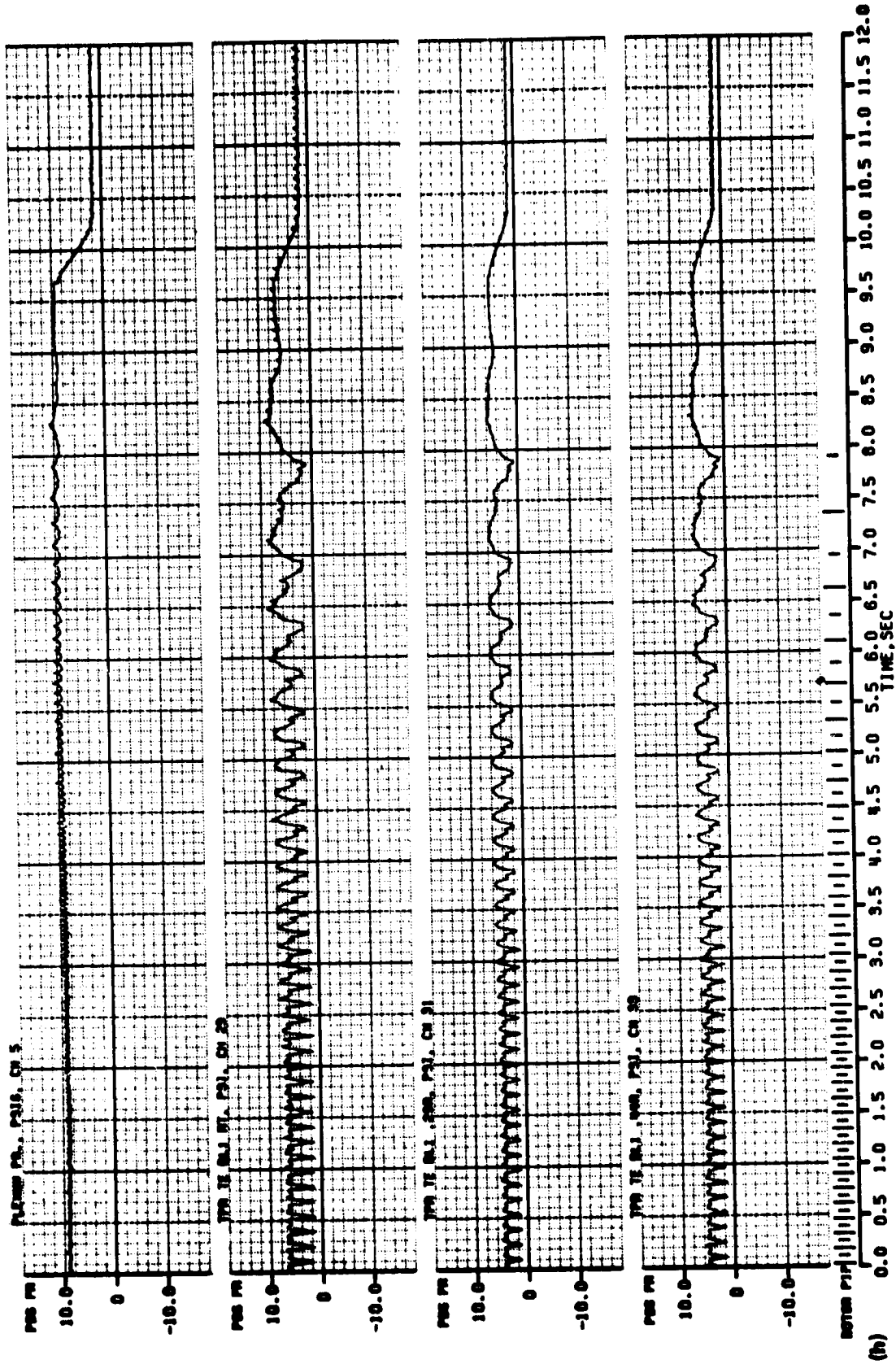


Figure 14.- Continued.

X-WING 40160 MT 180X CONV MODE STOP ALF=2 TH0--5 PP=8 X2P--1

TEST 530 RUN 83 POINT 7

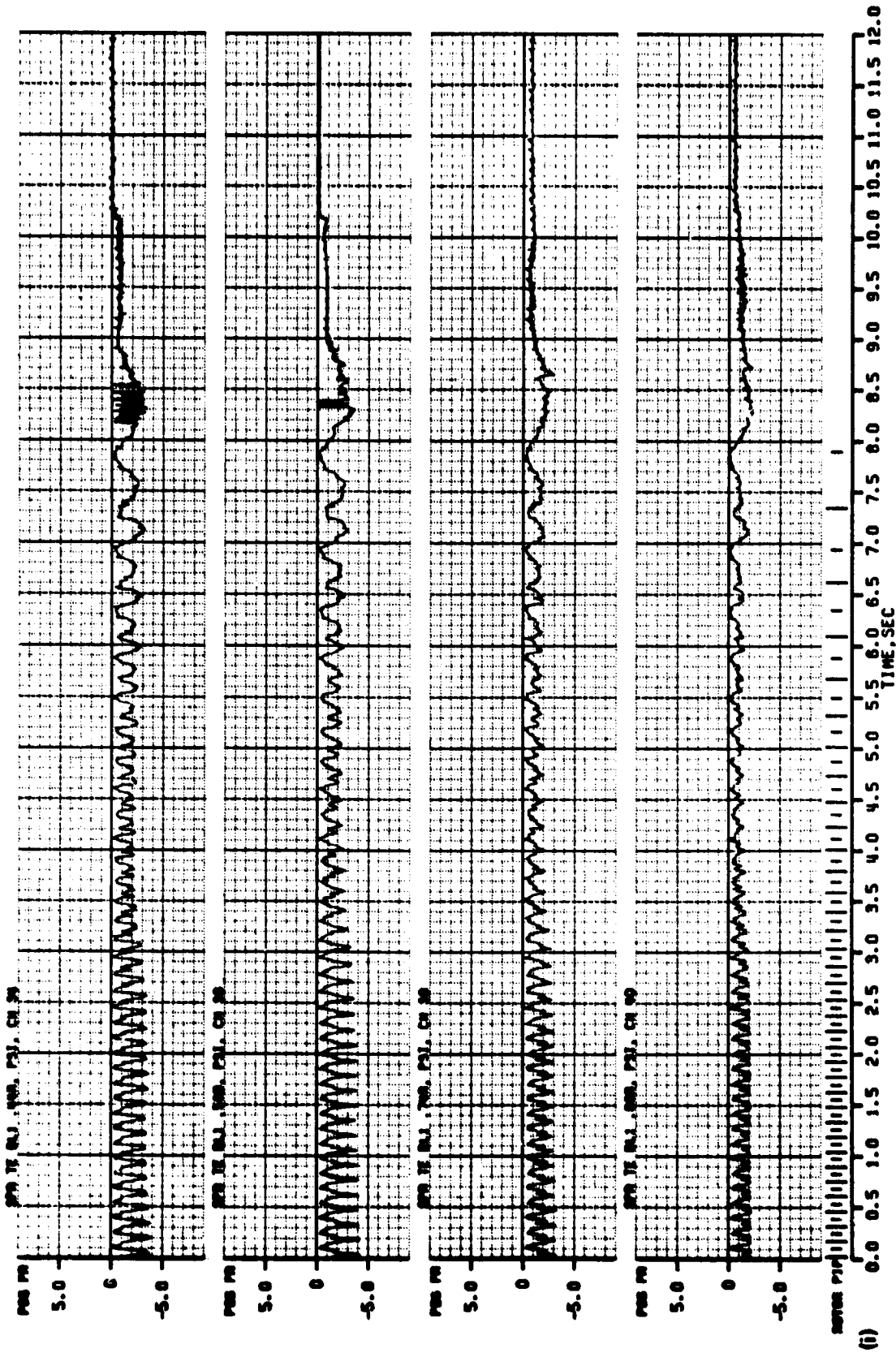


Figure 14.- Continued.

X-MING 40160 MT 180K COMV MODE STOP ALF-2 TMO--5 PP-6 X2P--1

TEST 539 RUN 43 POINT 7

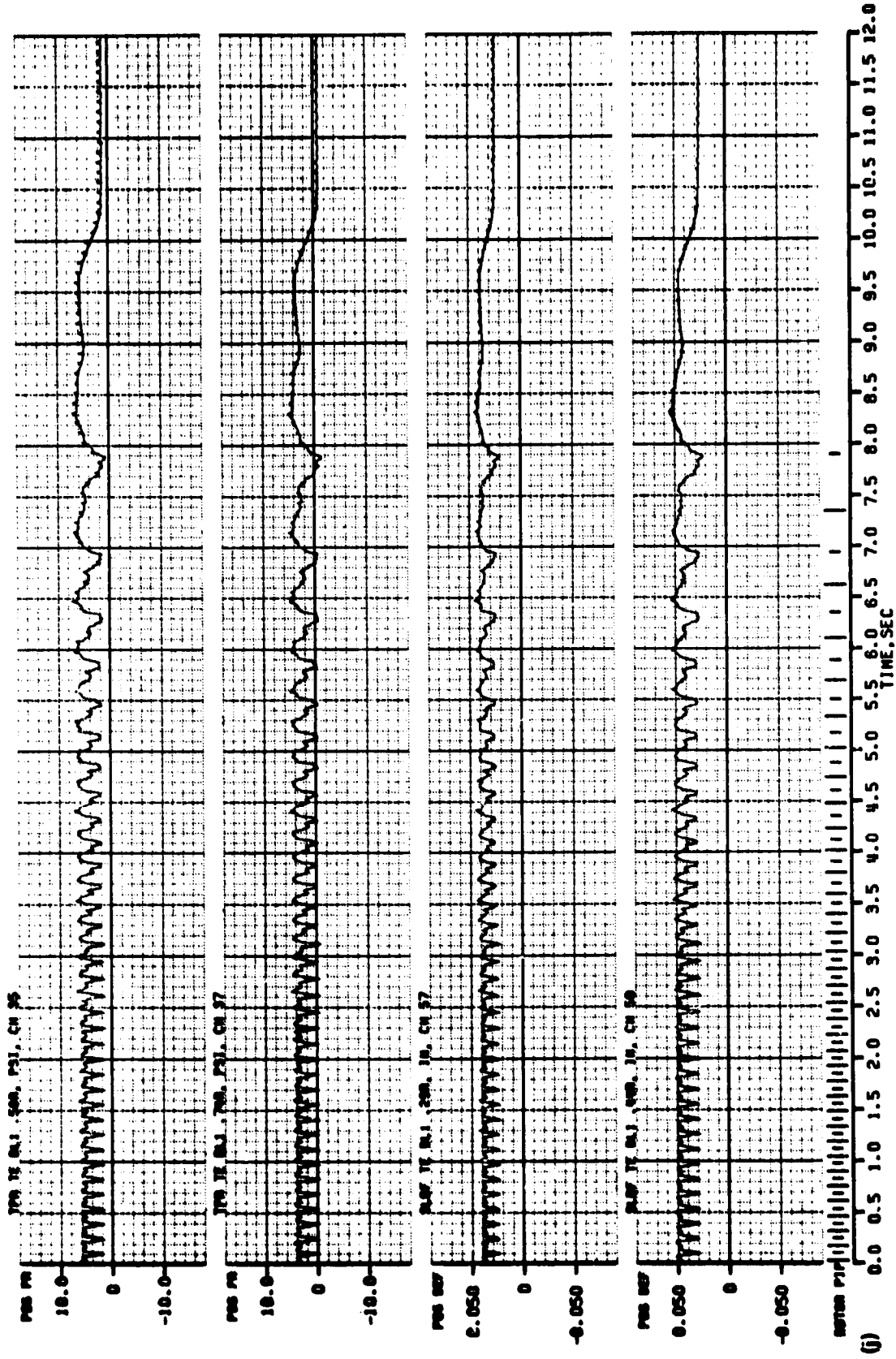


Figure 14.- Continued.

X-MING 40160 NT 180K CONV MODE STOP ALF=2 TH0--5 PP=8 X2P--1

TEST 539 RUN N3 POINT 7

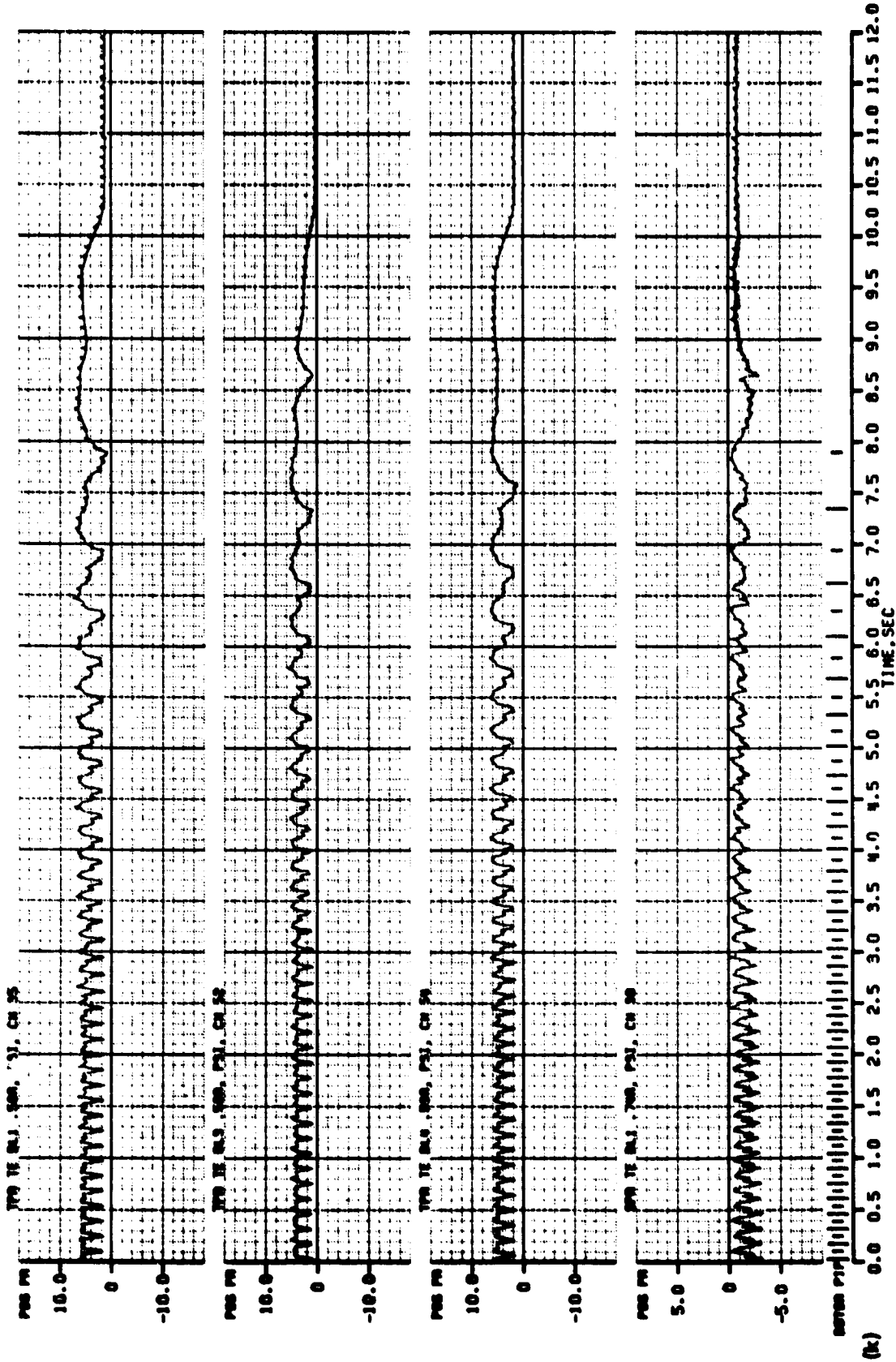


Figure 14.- Continued.

X-WING 40X80 NT 180X CONV MODE STOP ALF-2 TH0--5 PP-8 X2P--1

TEST 530 RUN 05 POINT 7

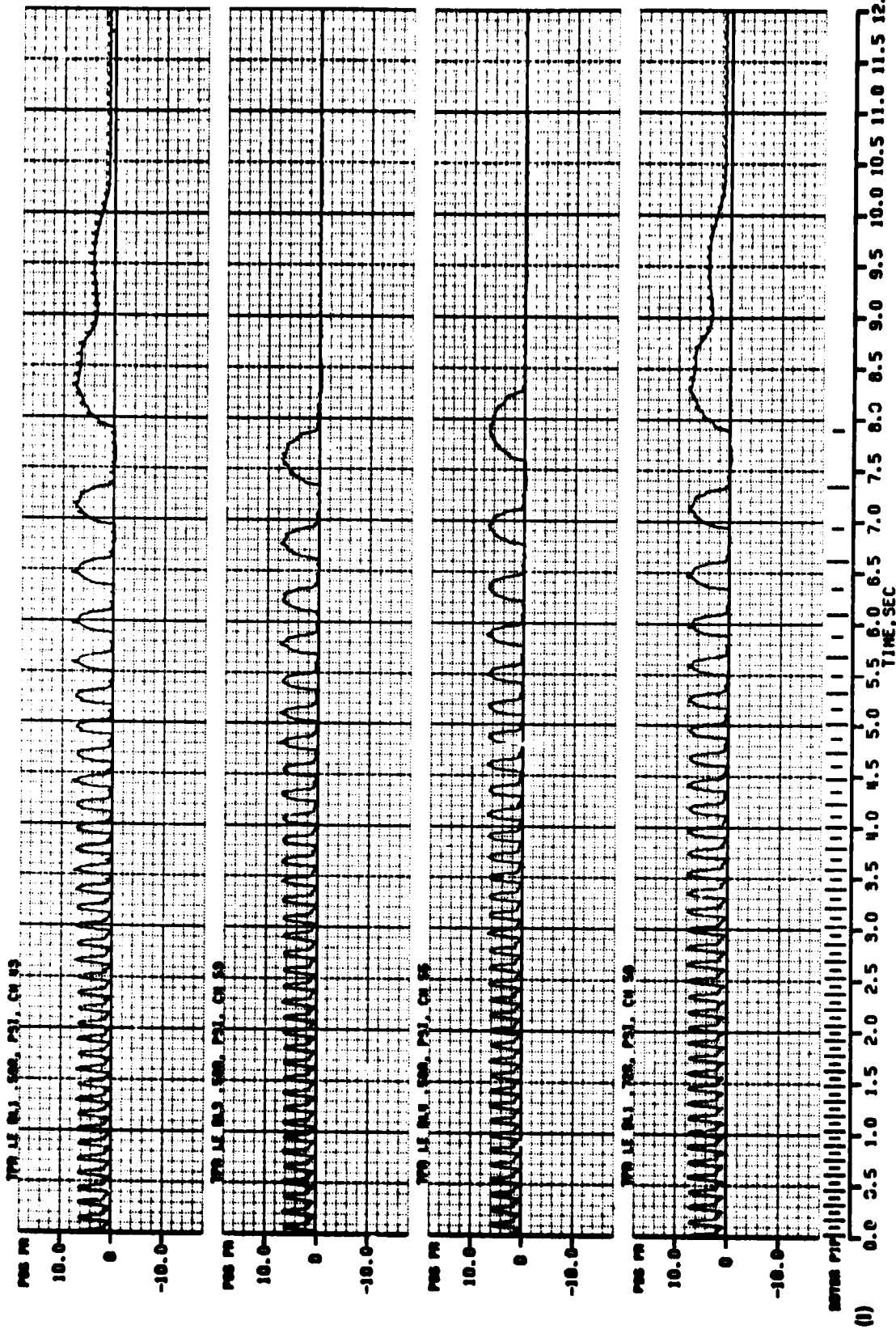


Figure 14.- Continued.

X-RING NOISE MT 180X CONV MODE STOP ALF-2 THO--5 PP-8 X2P--1

TEST 530 RUN 83 POINT 7

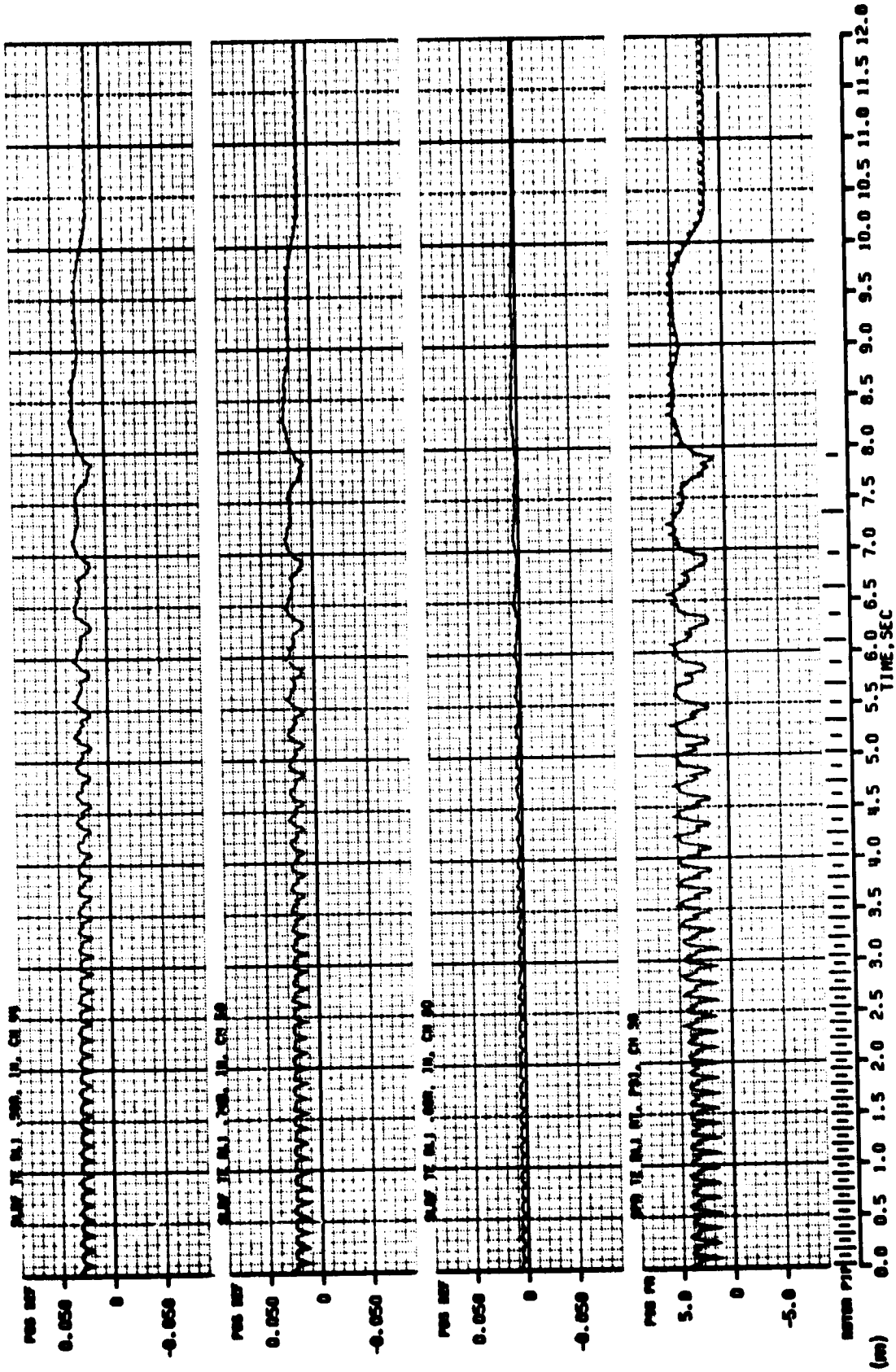


Figure 14.- Concluded.

X-WING 10100 WT 180K CONV MODE START ALF=2 TH0=-5 PP=7 X2P=-

TEST 539 RUN 43 POINT 8

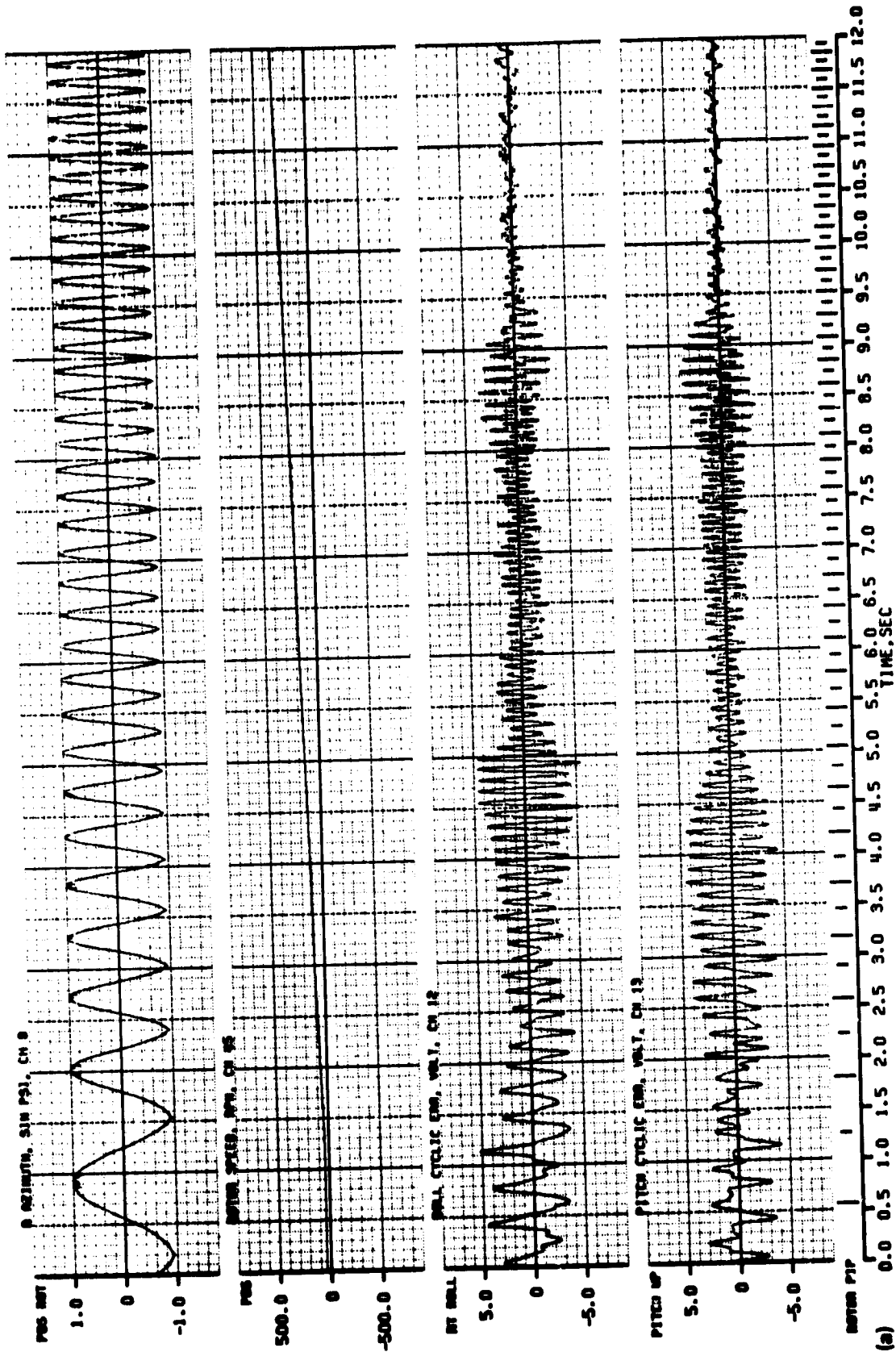


Figure 15.- Time history of run 43, data point 8, rotor transient from fixed-wing to rotary-wing.

X-RING 40160 NT 180K CONV MODE START ALF=2 TH0=-5 PP=7 X2P=-

TEST 530 RUN 43 POINT 0

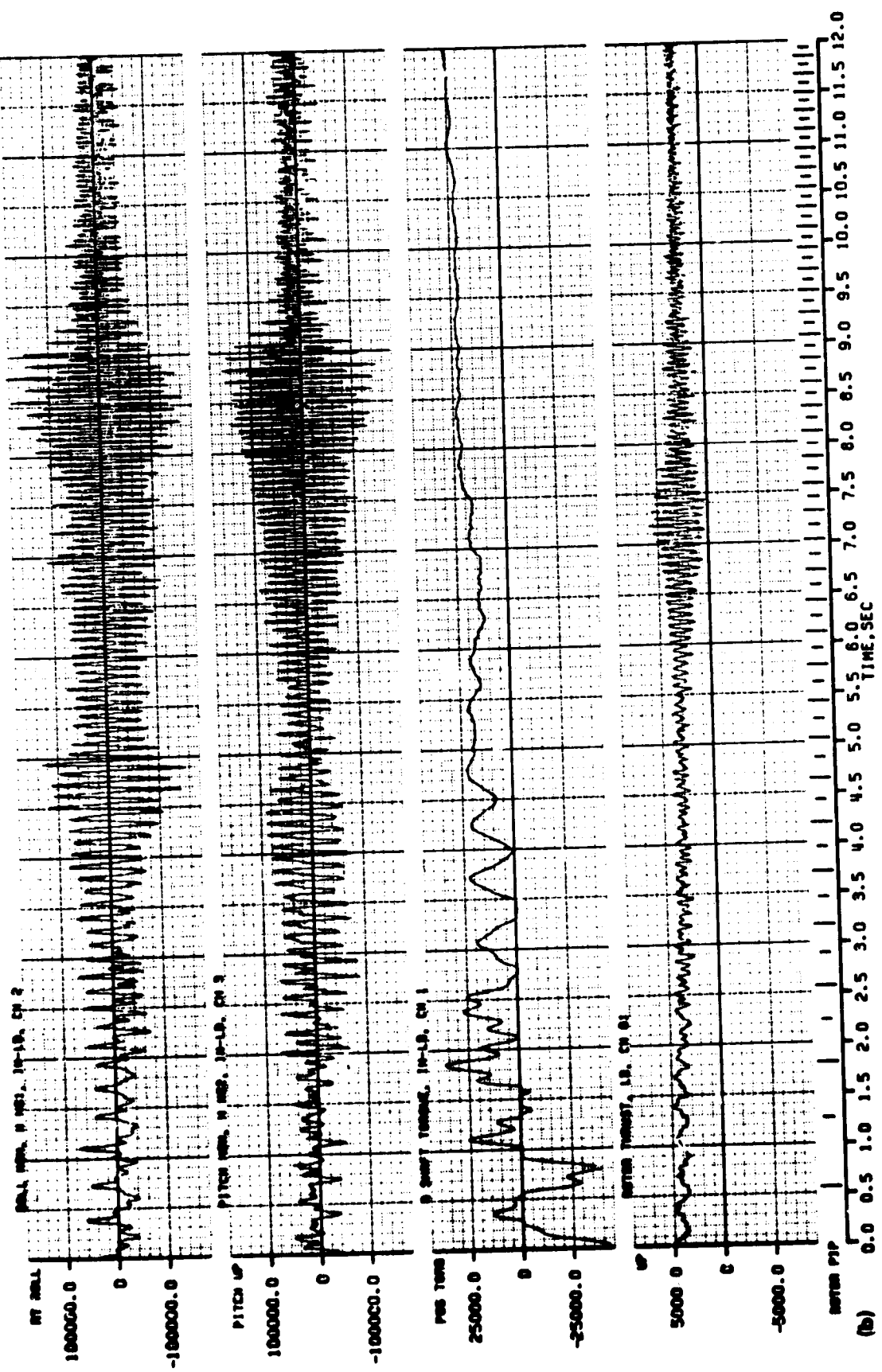


Figure 15.- Continued.

X-MING 40X100 WT 150X COMV MODE START ALF=2 THD=-5 PP=7 X2P=-
 TEST 530 RUN 03 POINT 8

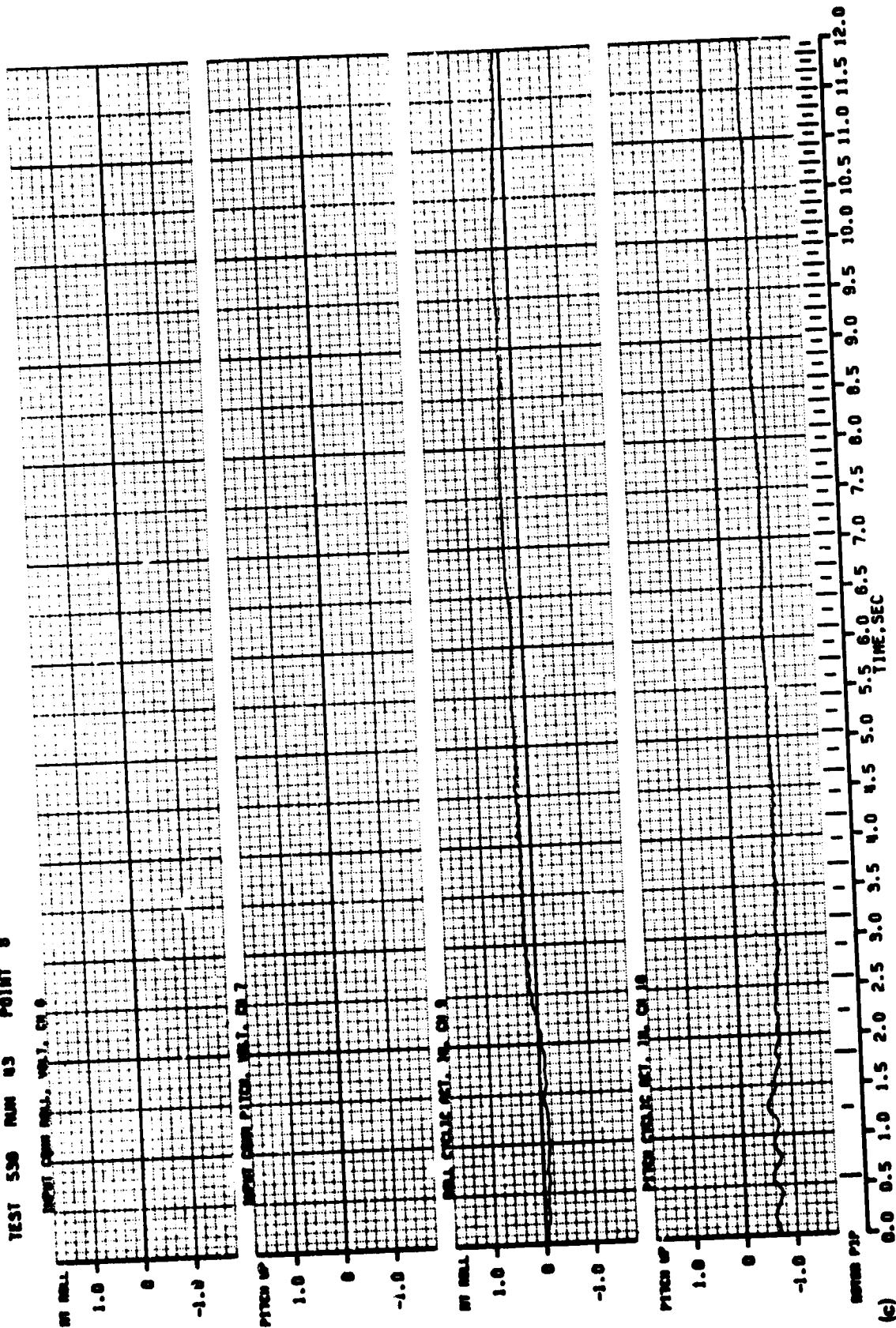


Figure 15.- Continued.

X-MING 40X80 MT 160K CONV MODE START ALF=2 THS=-5 PP=7 X2P=-
 TEST 536 RUN 43 POINT 8

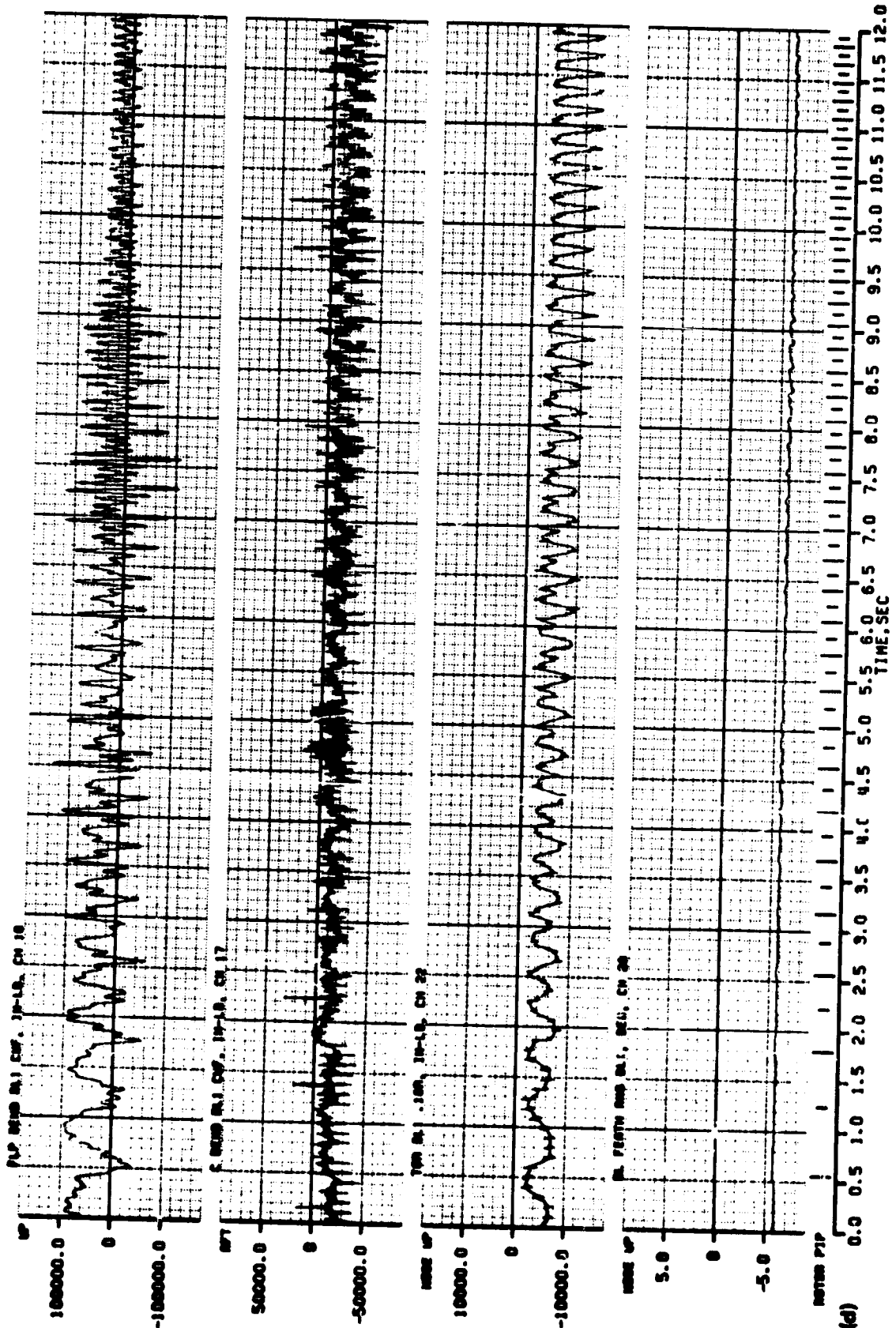


Figure 15.- Continued.

X-NING 40180 NT 180K CONV MODE START ALF=2 TH0=-5 PP=7 X2P=-

TEST 539 RUN 83 POINT 8

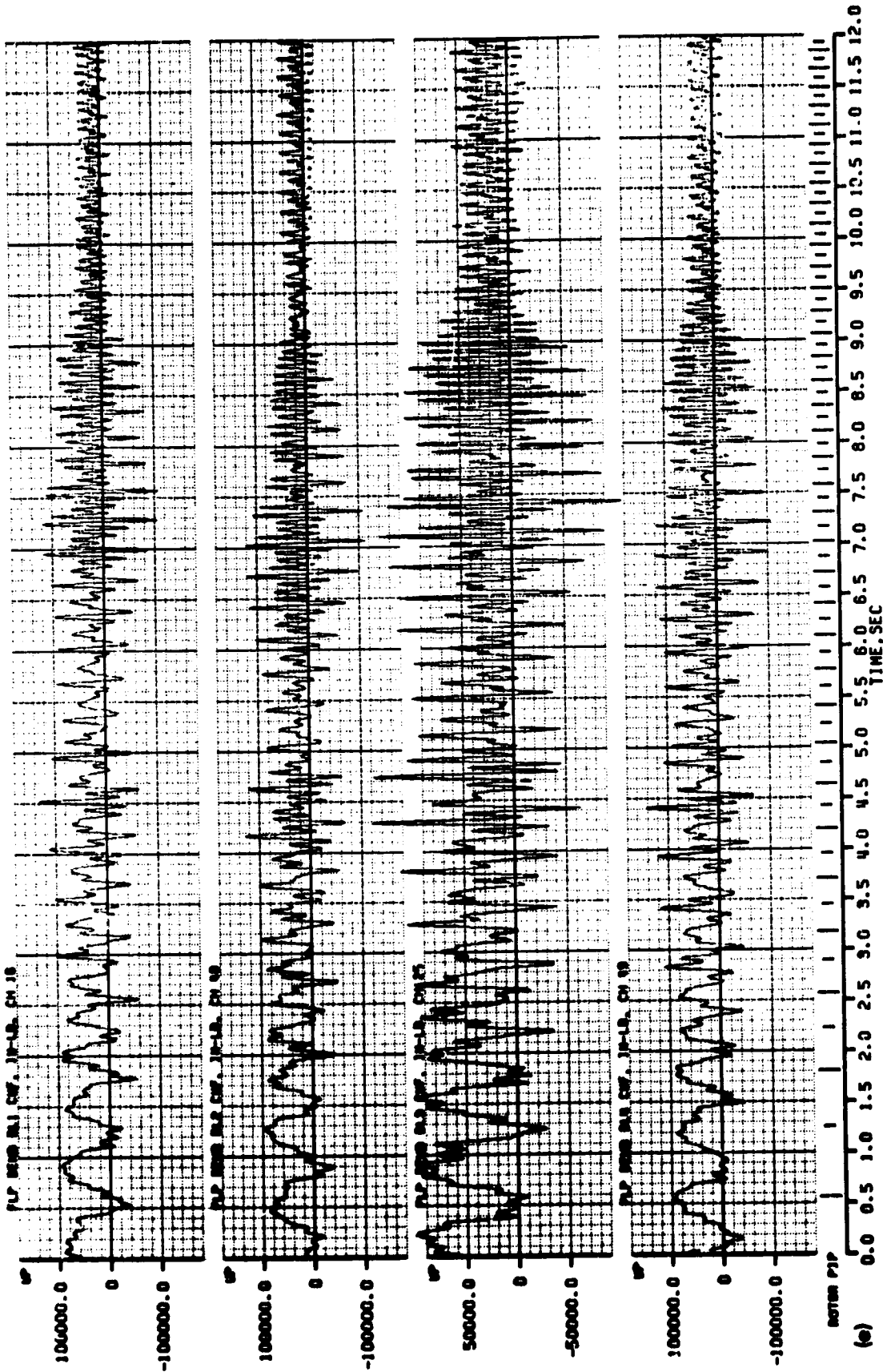


Figure 15.- Continued.

X-RING 40X80 NT 180X CONV MODE START ALF=2 TMO=5 PP=7 X2P=-

TEST 539 RUN 43 POINT 8

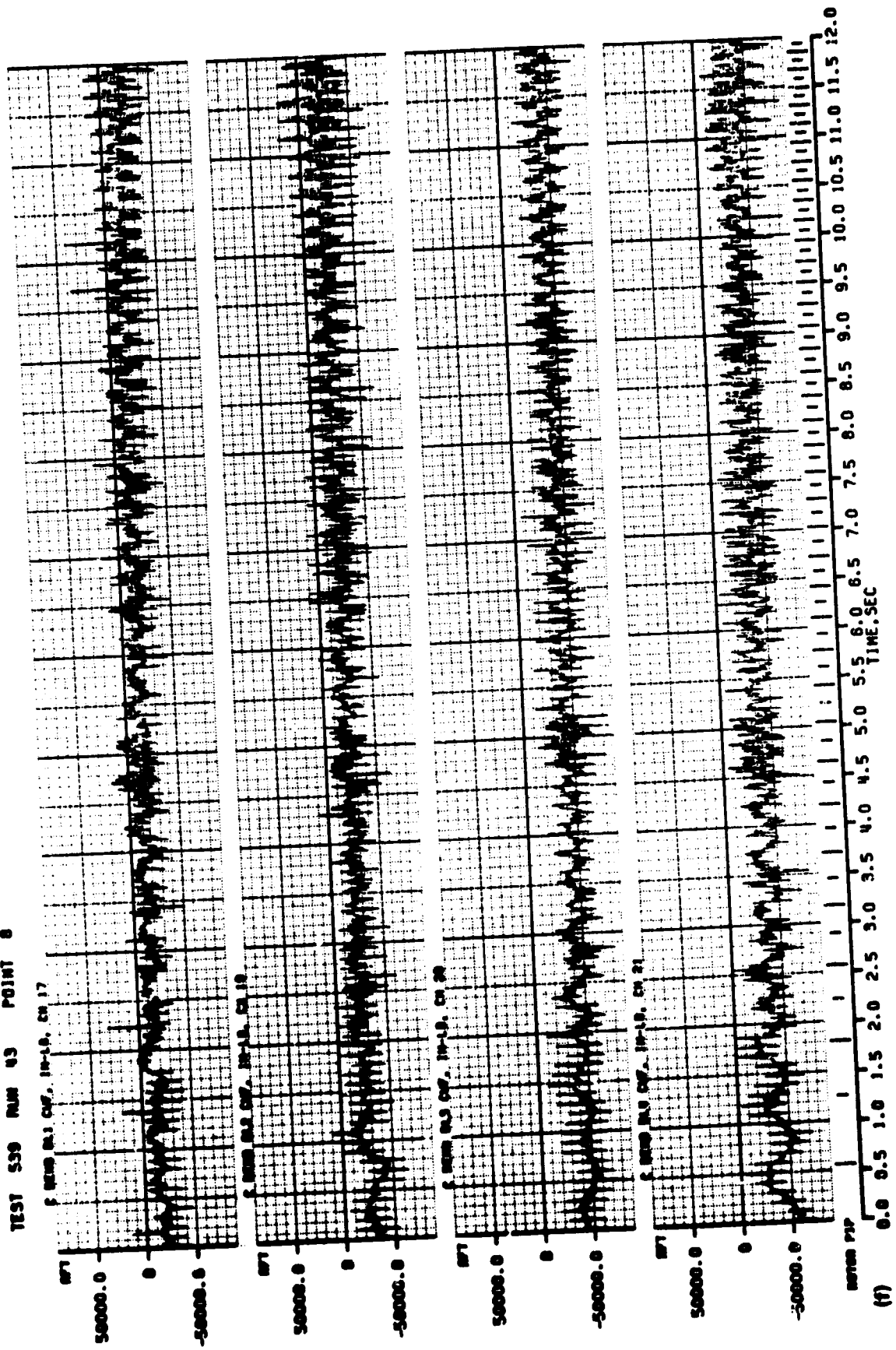


Figure 15.- Continued.

QUALITY

X-MING 40X80 NT 180X CONV MODE START ALF=2 TH0--5 PP=7 X2P--
 TEST 530 RUN 0.5 POINT 8

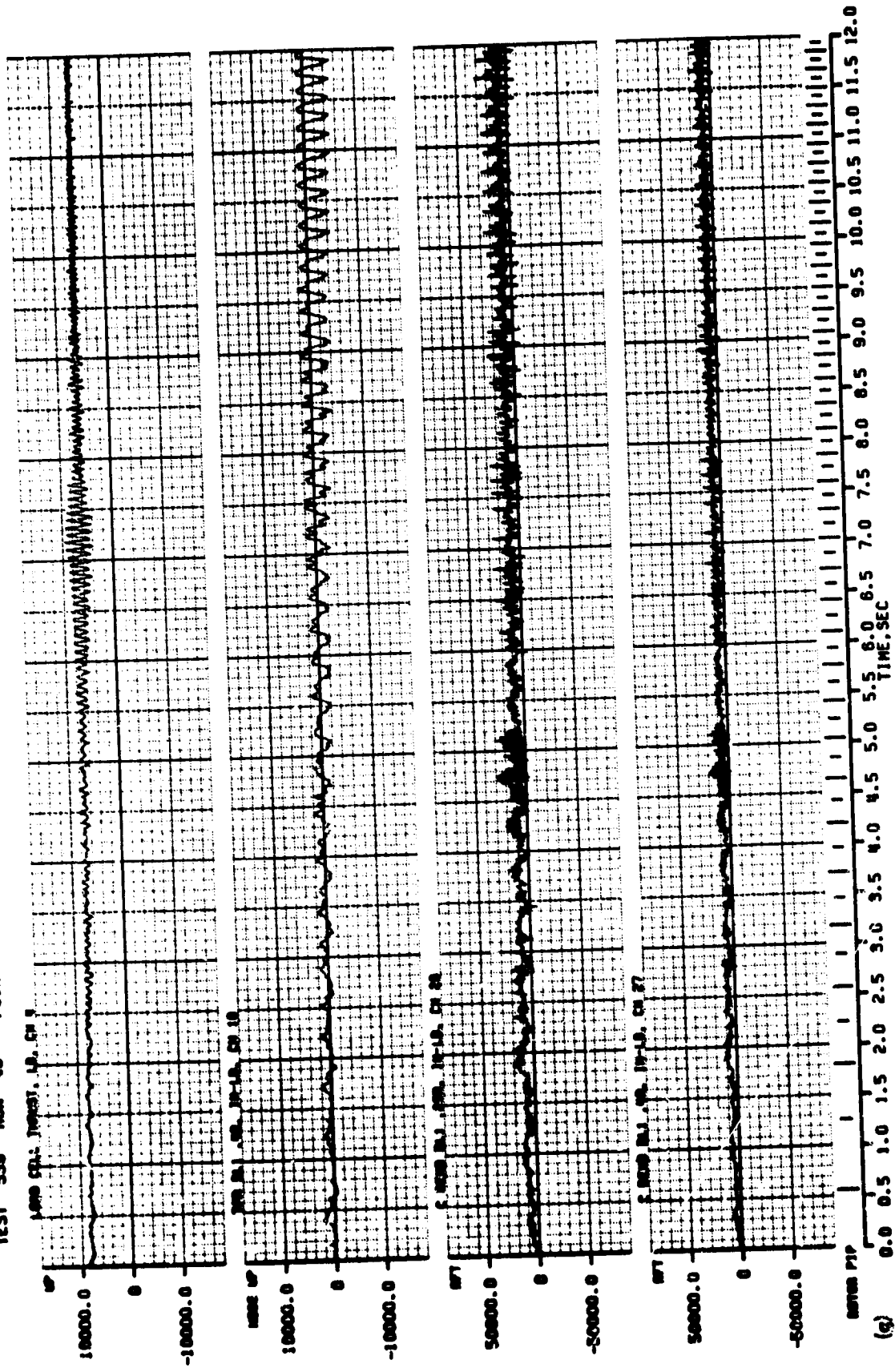
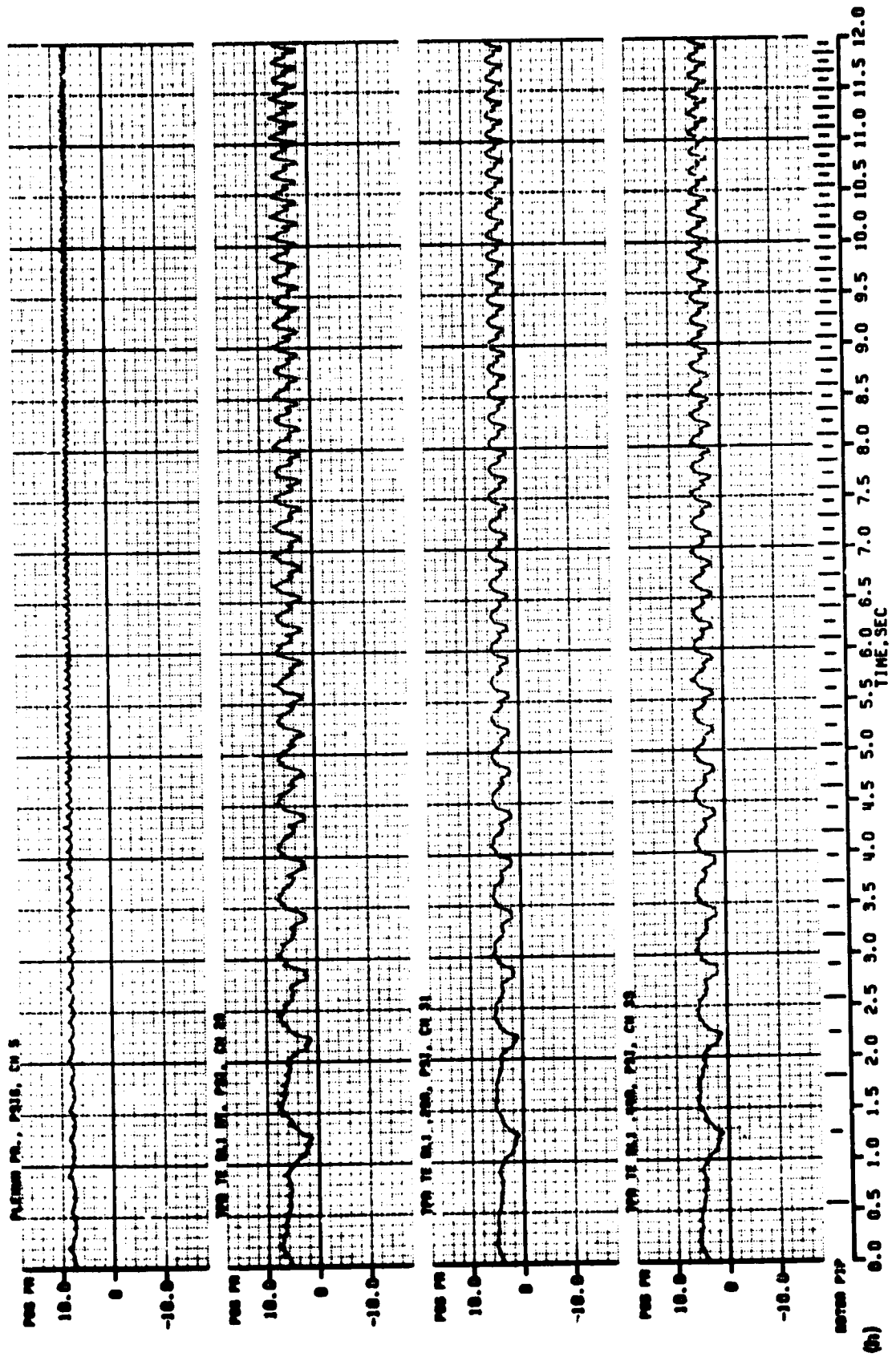


Figure 15.- Continued.

X-WING 4024PO MT 1BOX COMV MODE START ALF=2 TH0=-5 PP=7 X2P=-
 TEST 530 RUN 43 POINT 8



(h) 0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5 12.0
 TIME, SEC

Figure 15.- Continued.

X-MING 40X60 NT 180K CONV MODE START ALF=2 TH0=-5 PP=7 X2P=-

TEST 536 RUN 43 POINT 8

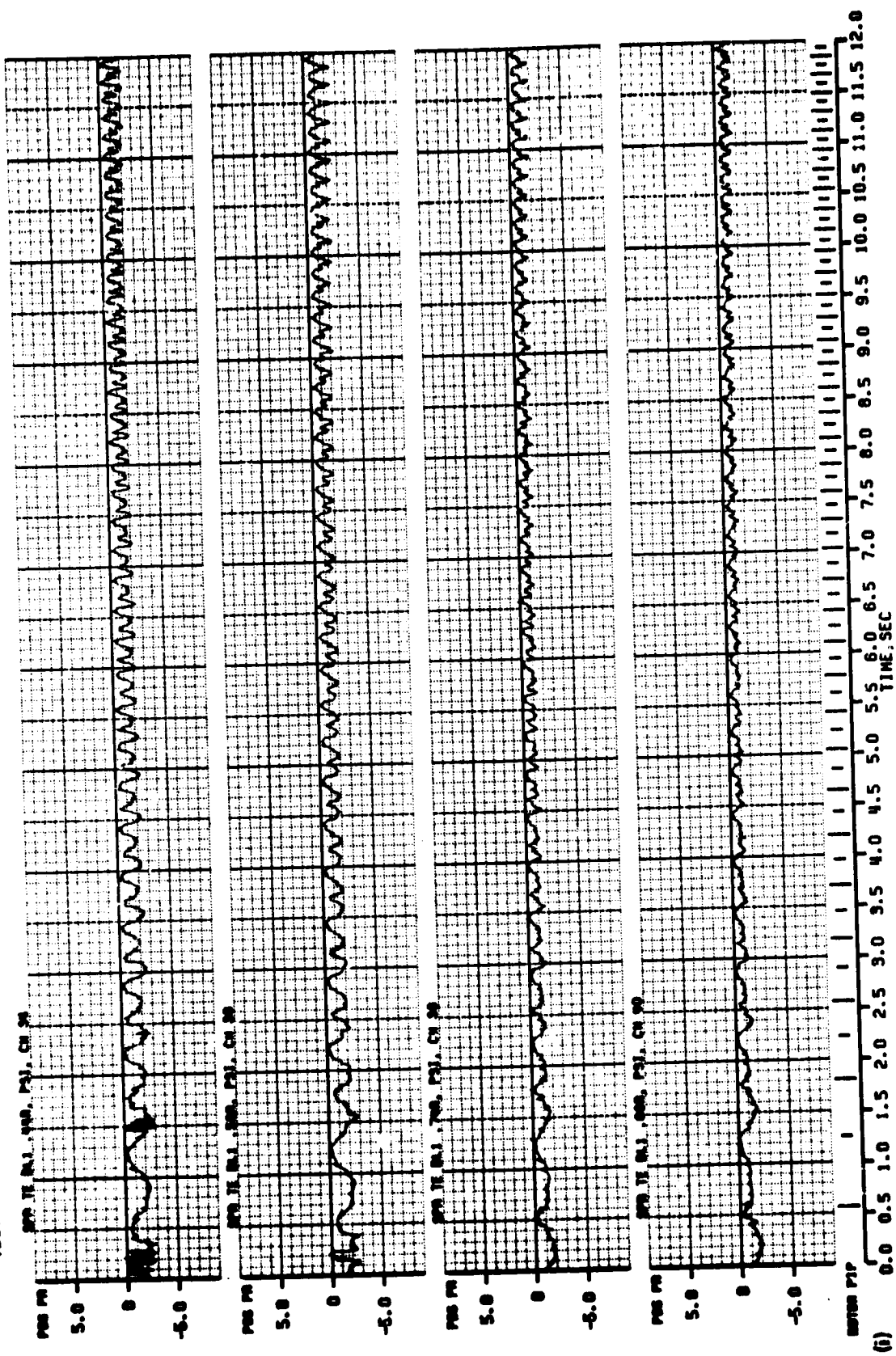


Figure 15.- Continued.

X-MING 60X60 WT 180X CONV MODE START ALF=2 THD=5 PP=7 X2P=-

TEST 538 RUN 43 POINT 8

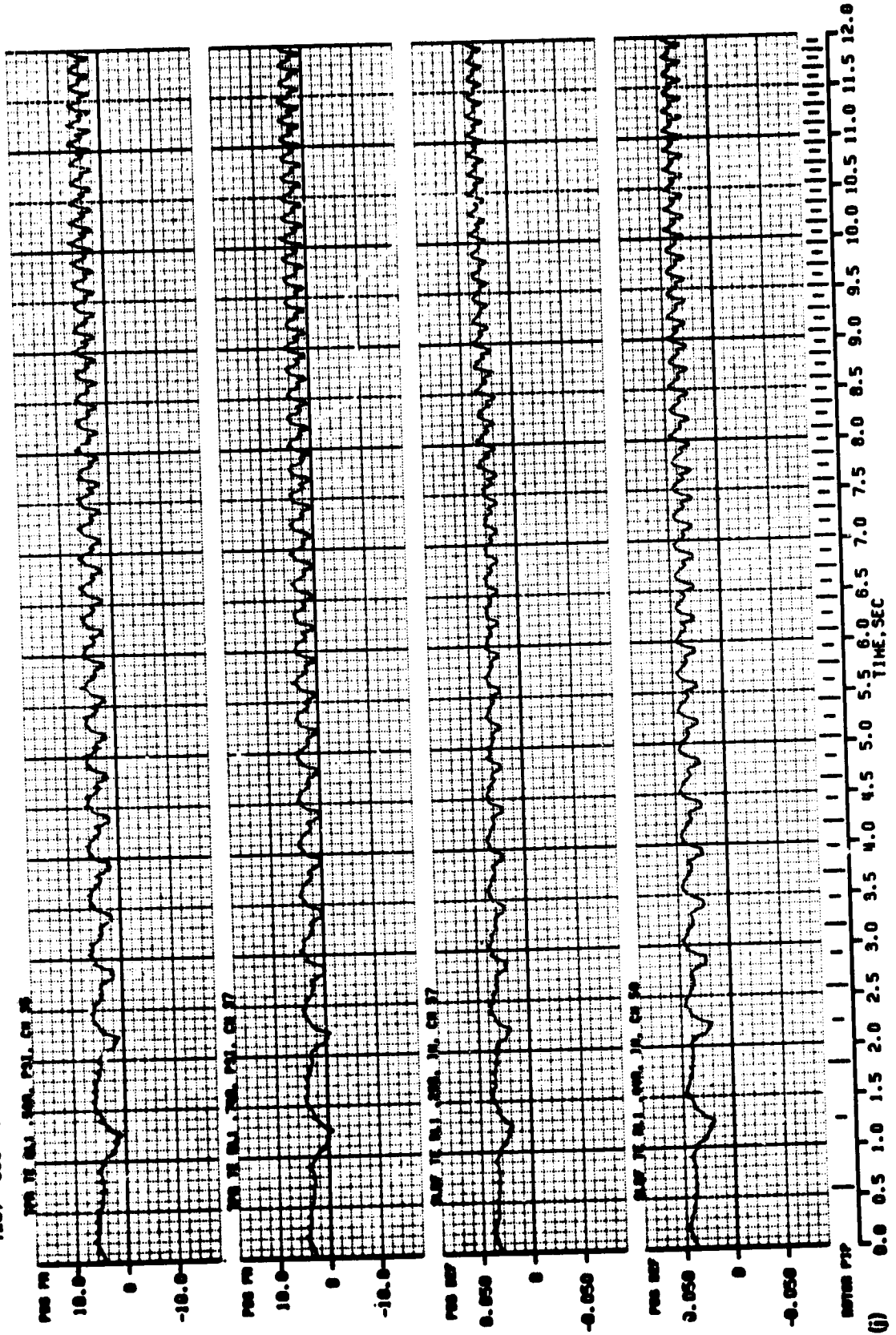
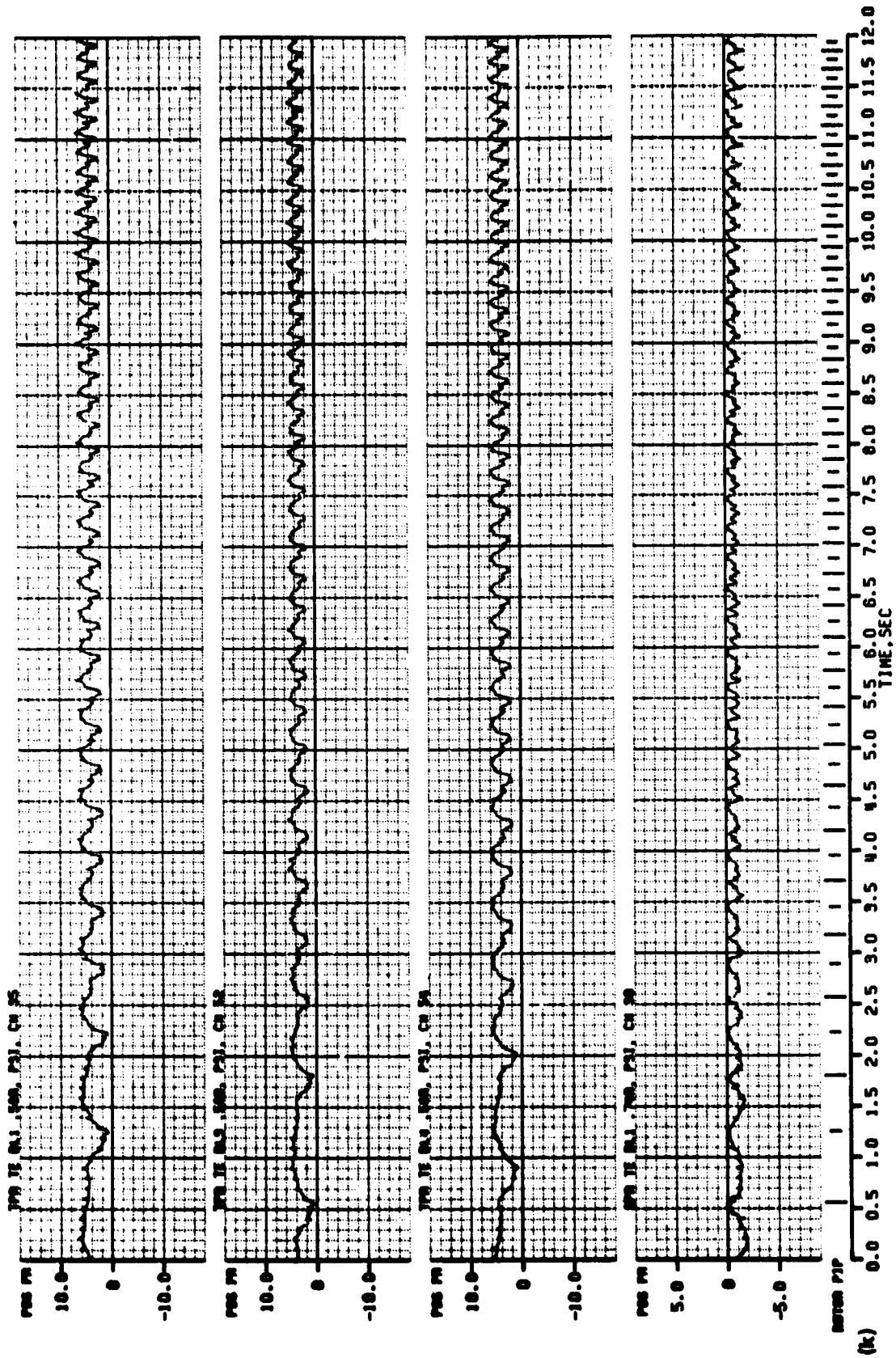


Figure 15.- Continued.

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X-MING 40160 NT 180K CONV MODE START ALF-2 IN0-5 PP=7 X2P=-

TEST 539 RUN 43 POINT 8



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Figure 15.- Continued.

X-WING 40X60 MT 180K CONY MODE START ALF=2 THD=5 PP=7 X2P=-

TEST 530 RUN 83 POINT 8

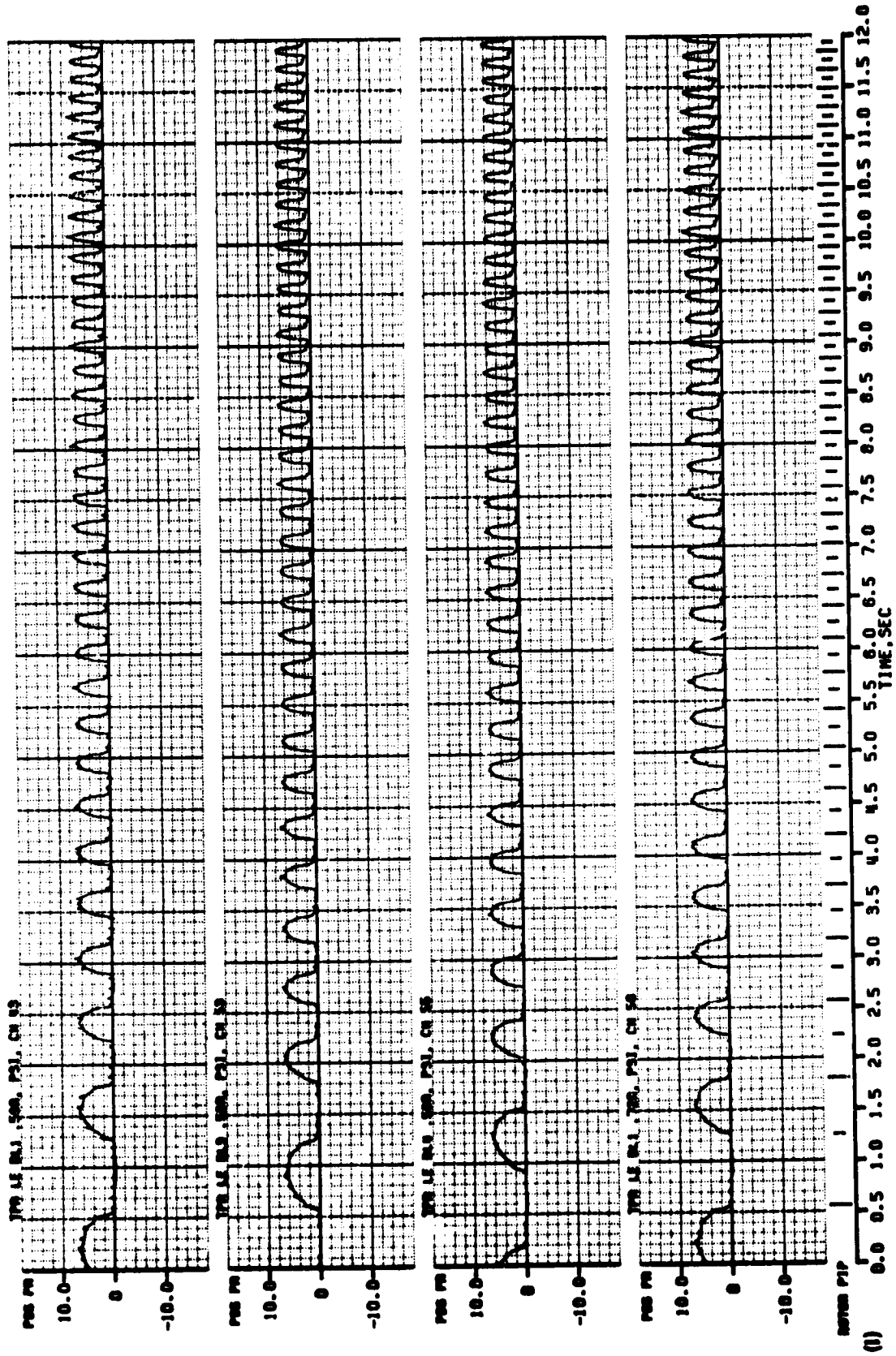


Figure 15.- Continued.

X-MING 40X60 MT 180K CONV MODE START ALF-2 THO--5 PP=7 X2P--
 TEST 538 RUN 43 POINT 8

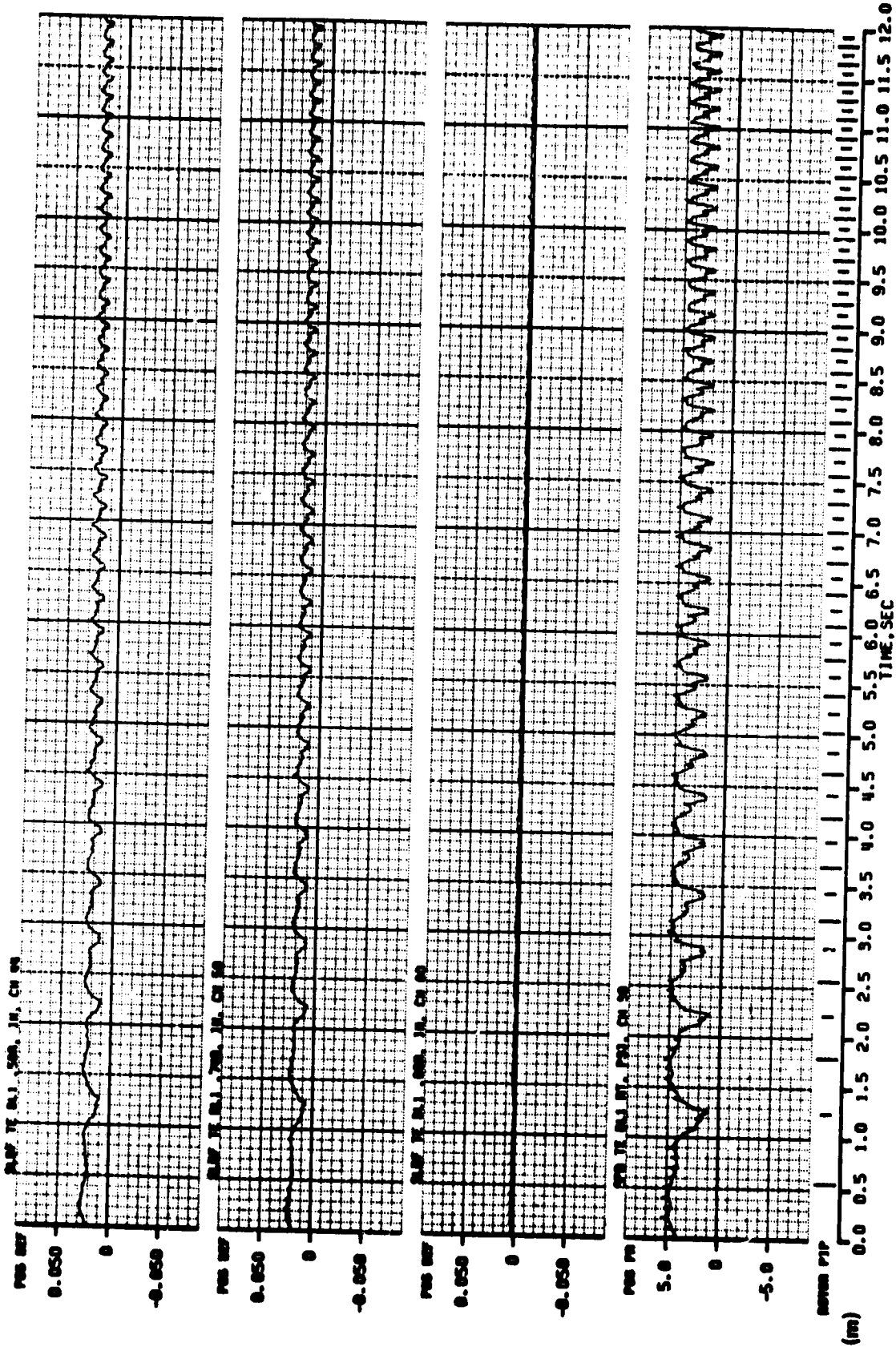


Figure 15.- Concluded.

X-WING NO100 MT 180K CONV MODE STOP ALF=2 TH0=-5 PP=0.8 X2P=

TEST 539 RUN 43 POINT 9

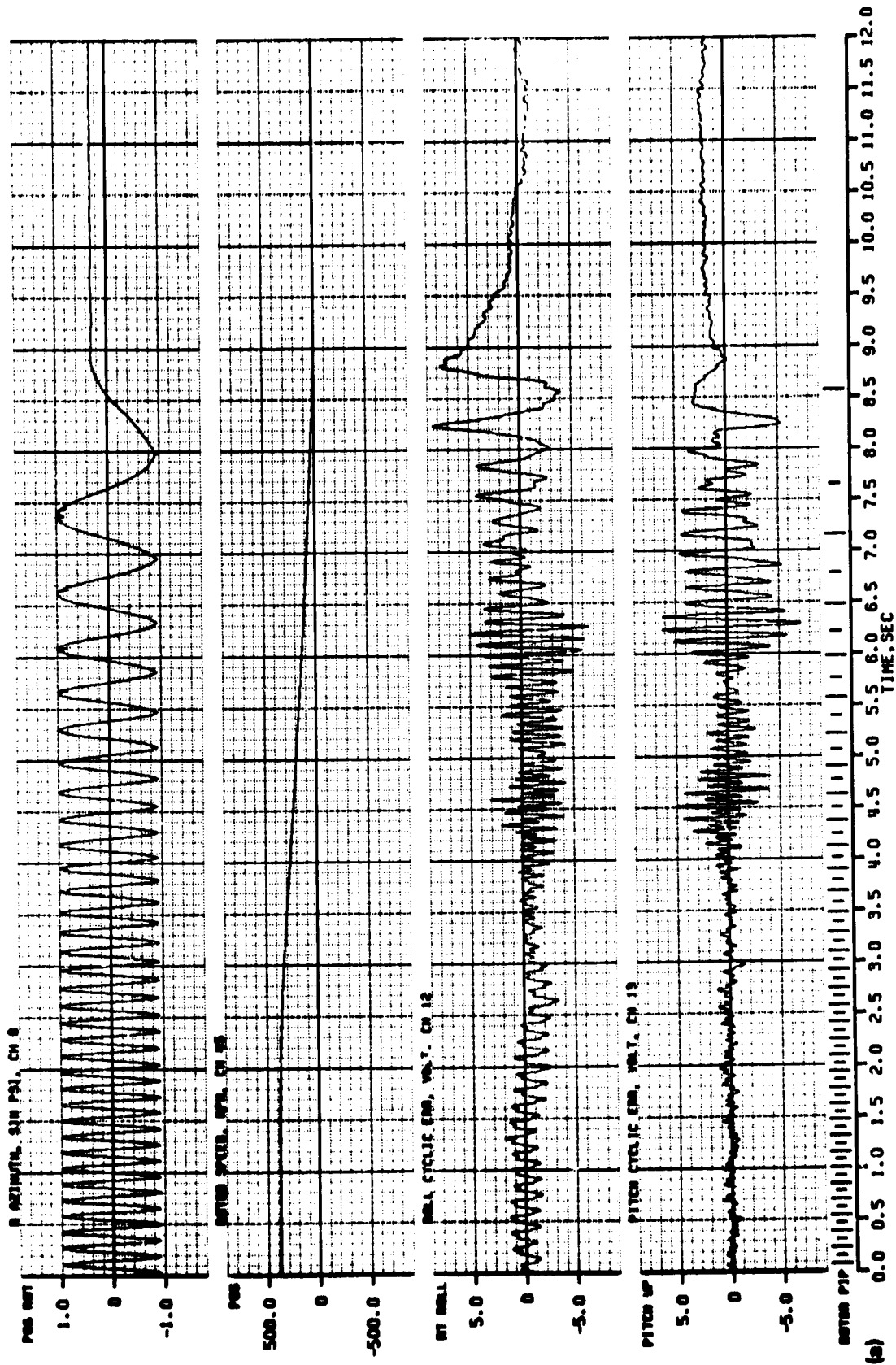


Figure 16.- Time history of run 43, data point 9, rotor transient from rotary-wing to fixed wing.

X-WING 40X80 WT 180K CONV MODE STOP ALF=2 TH0=-5 PP=8.8 X2P=
 TEST 539 RUN 43 POINT 9

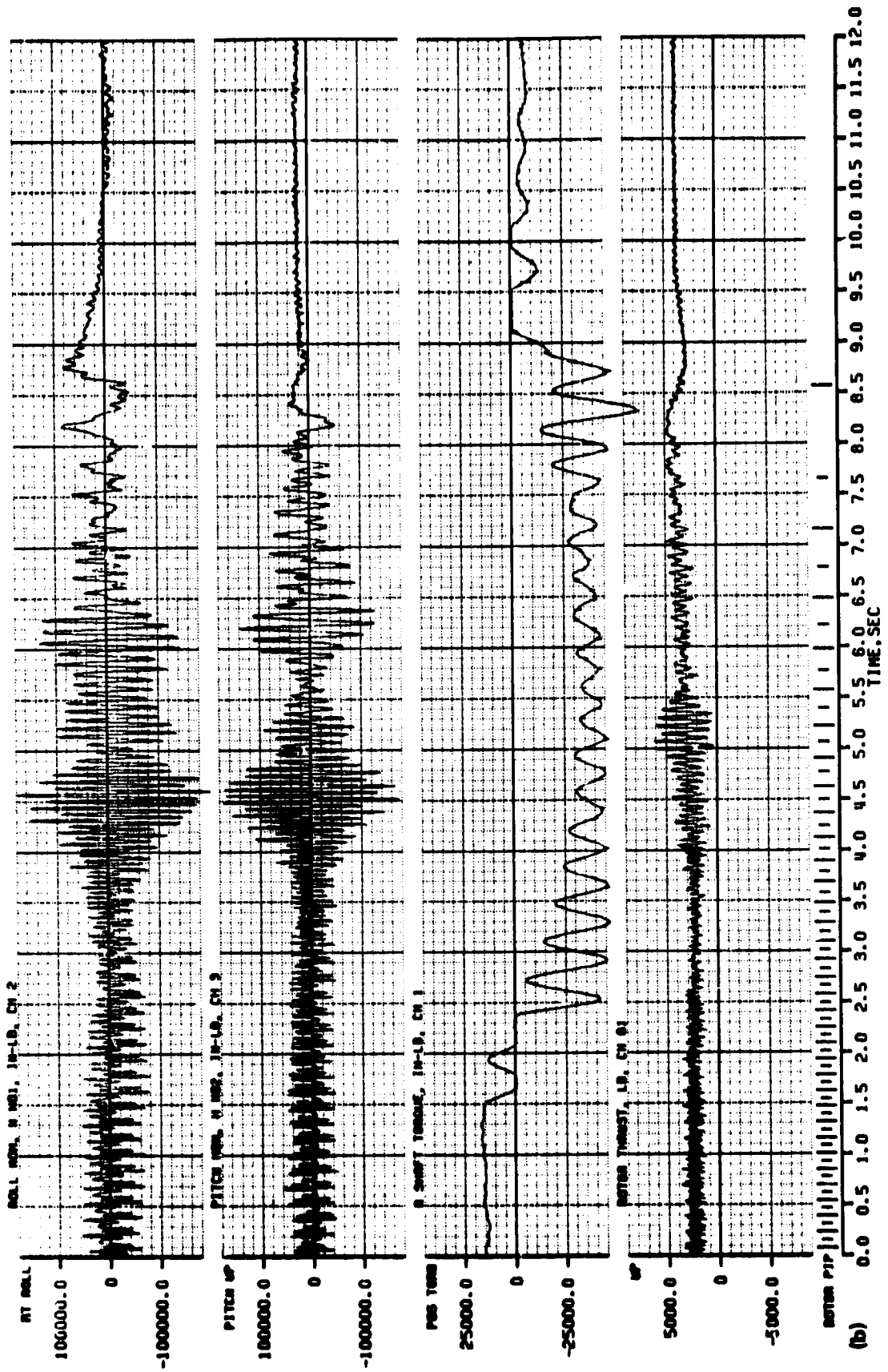


Figure 16.- Continued.

X-MING 40X80 MT 180K CONV MODE STOP ALF=2 TH0=-5 PP=8.8 X2P=

TEST 539 RUN 83 POINT 9

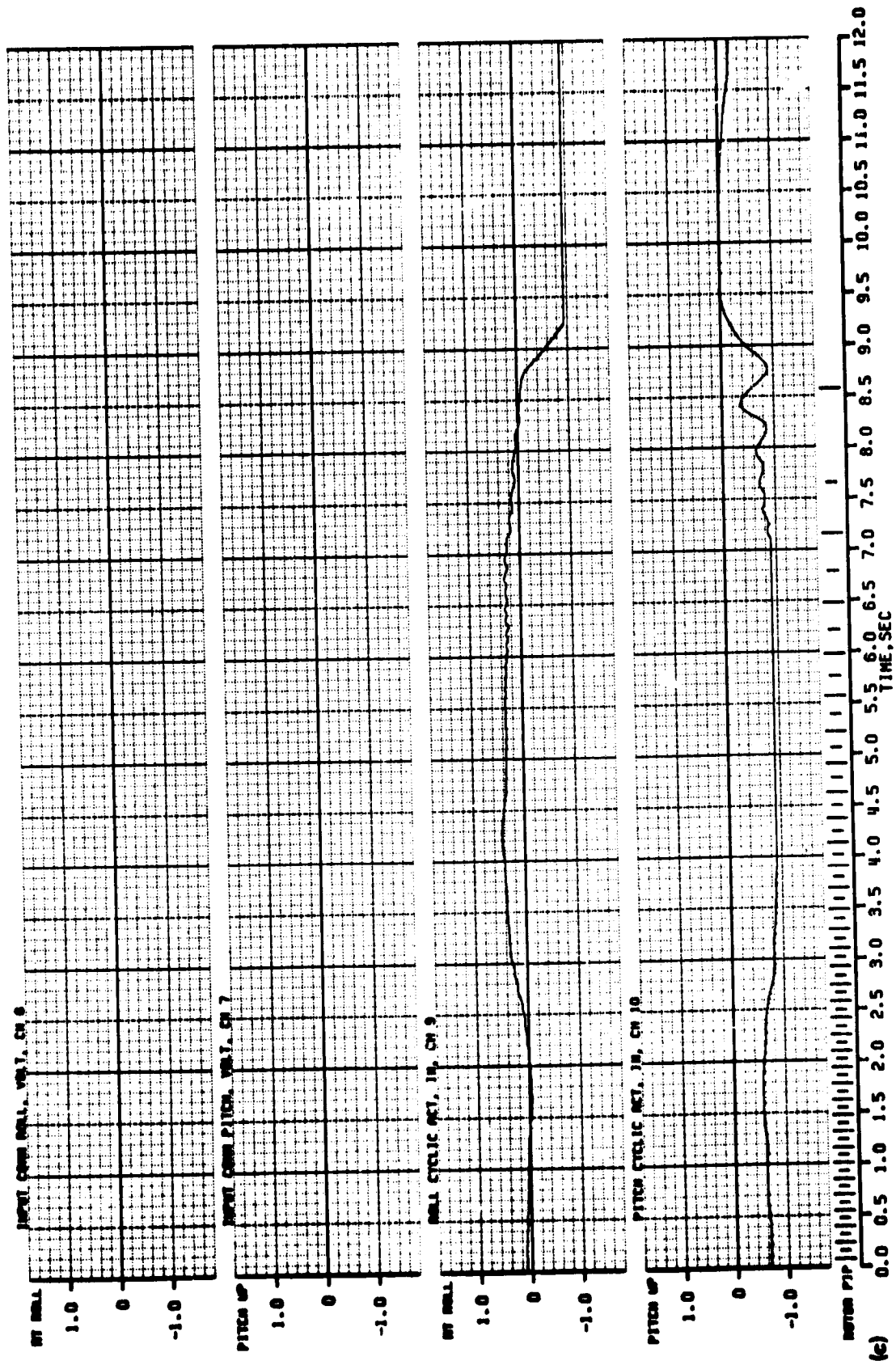


Figure 16.- Continued.

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X-MING 40180 MT 180X CONV MODE STOP ALF=2 THO=-5 PP=6.6 X2P=

TEST 538 RUN 43 POINT 9

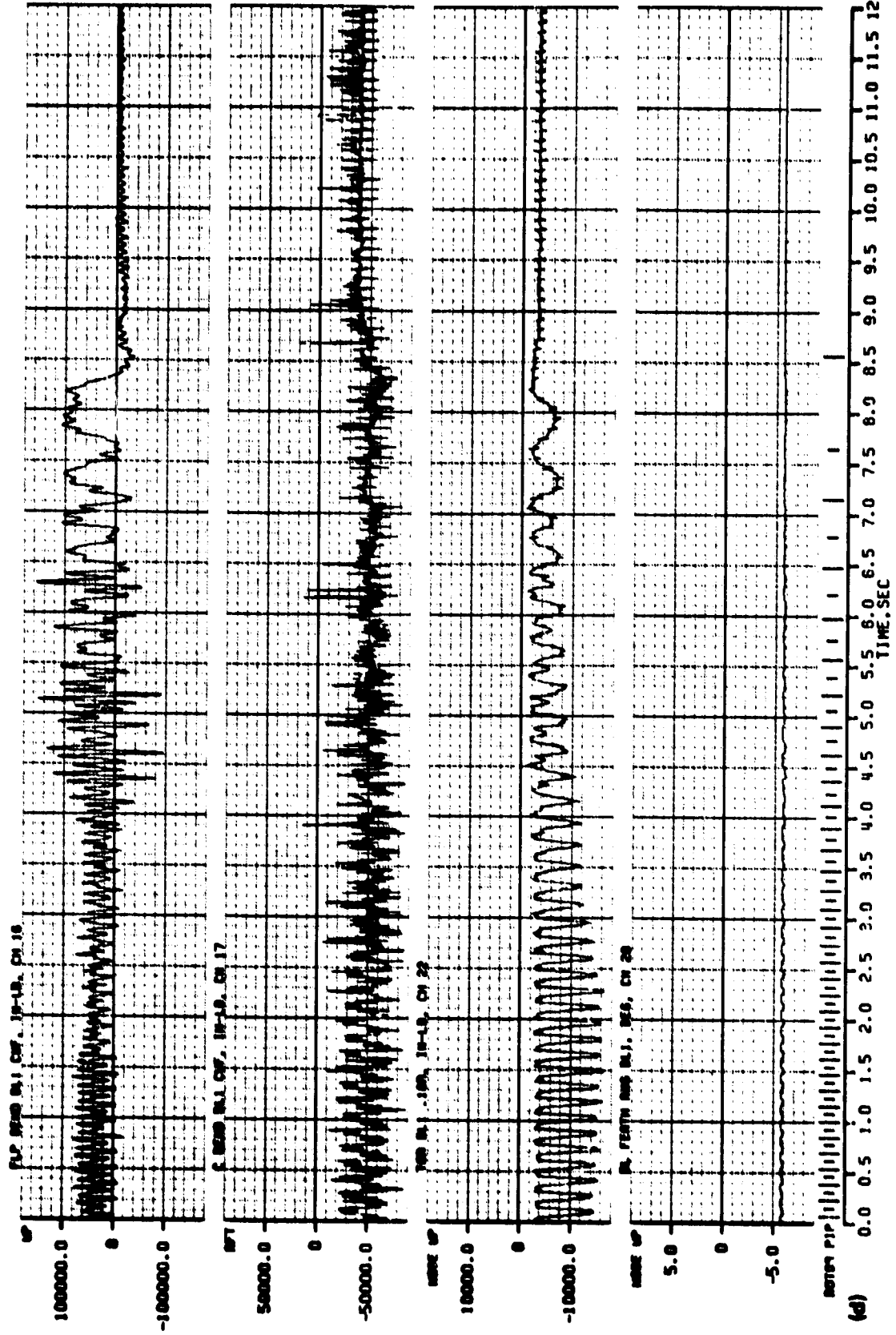
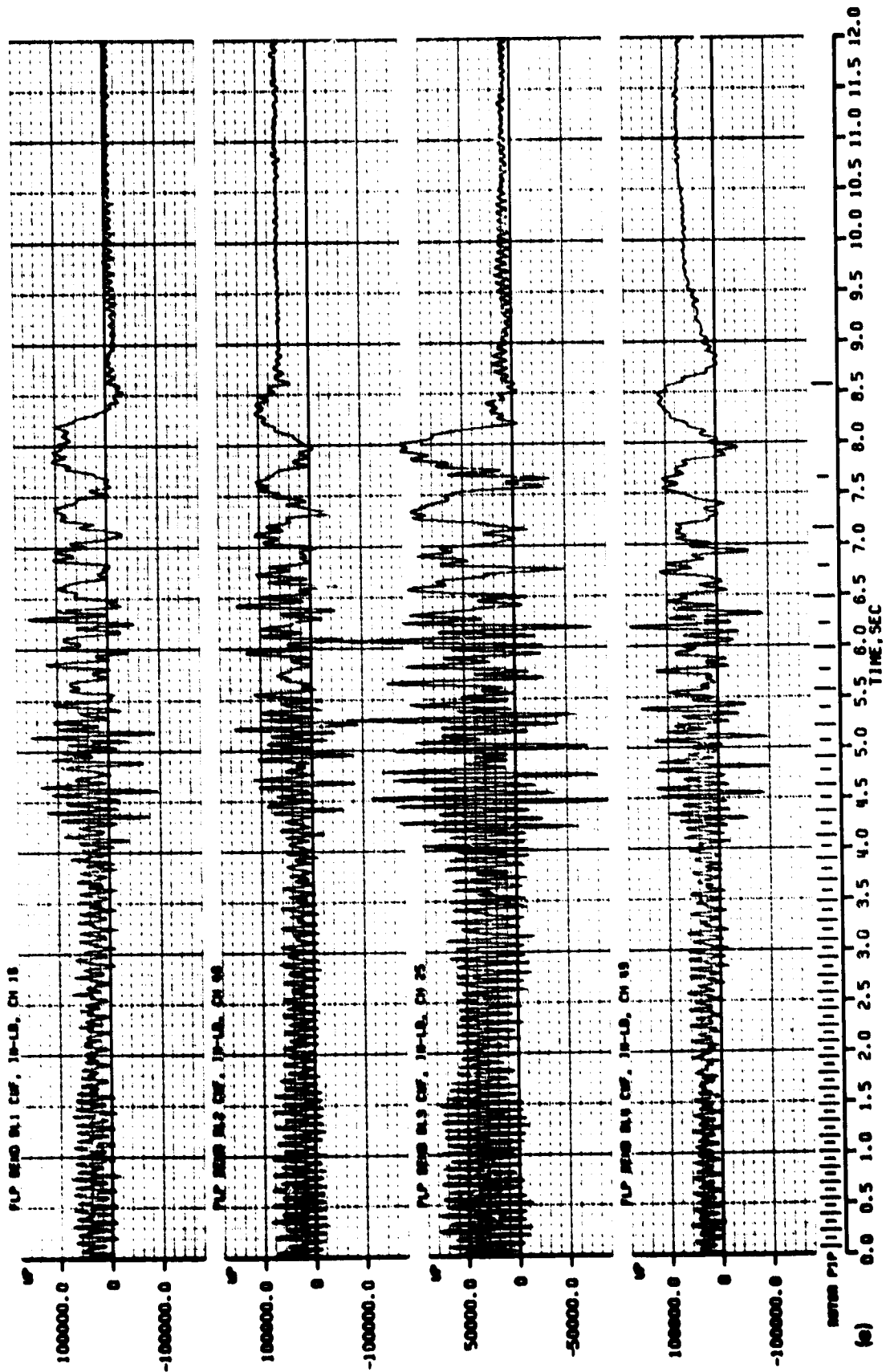


Figure 16.- Continued.

X-NIMS 90180 MT 180K CONV MODE STOP ALF-2 TH0-5 PP=8.8 X2P=
TEST 530 RUN 43 POINT 9



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Figure 16.- Continued.

X-MING 40100 MT 180K CONV MODE STOP ALF=2 TND=5 PP=6.8 X2P=

TEST 530 RUN 43 POINT 9

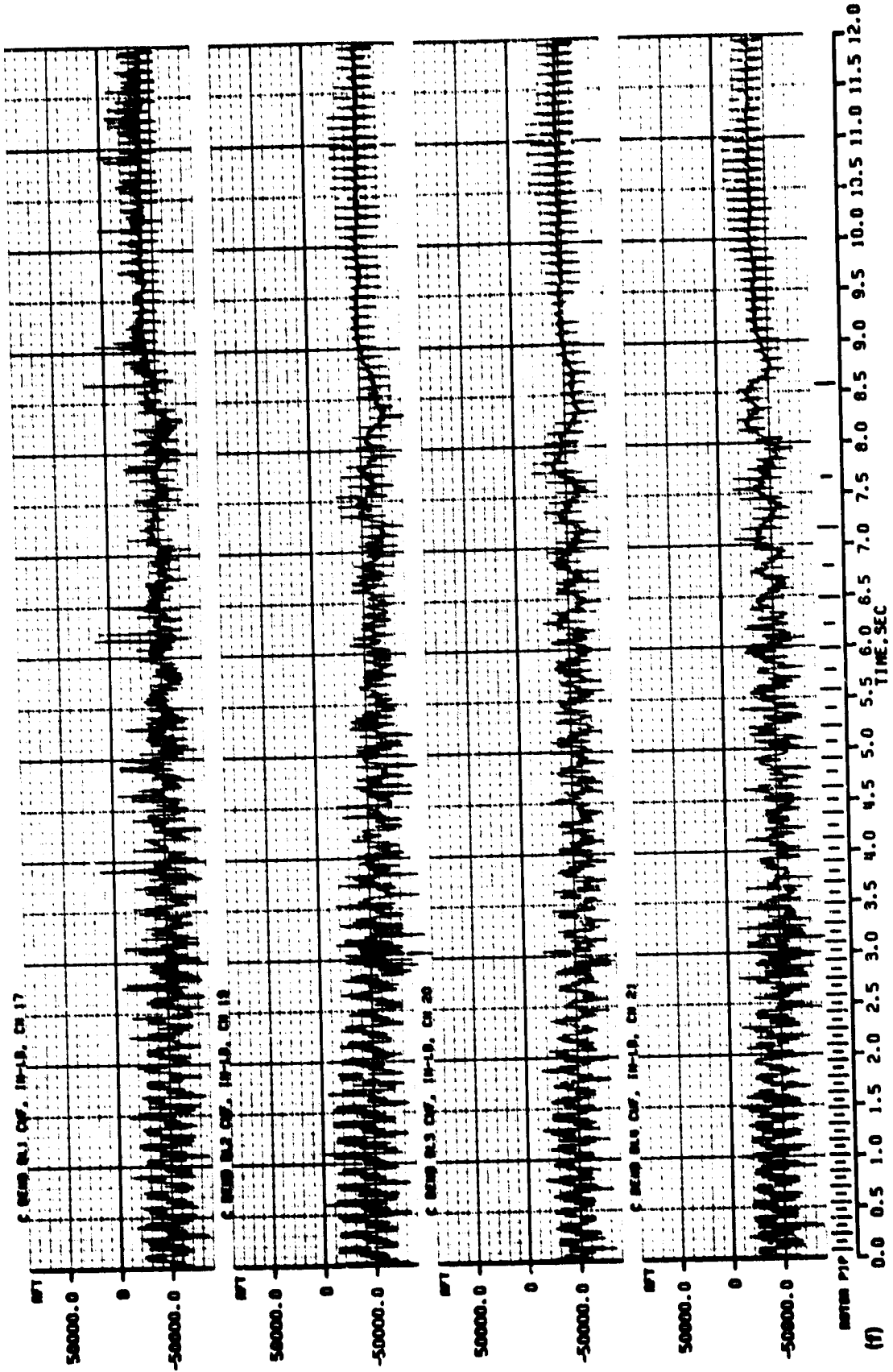


Figure 16.- Continued.

X-MING 40100 NT 180K CONV MODE STOP ALF-2 TH0--5 PP-8.8 X2P-
 TEST 538 RUN 83 POINT 9

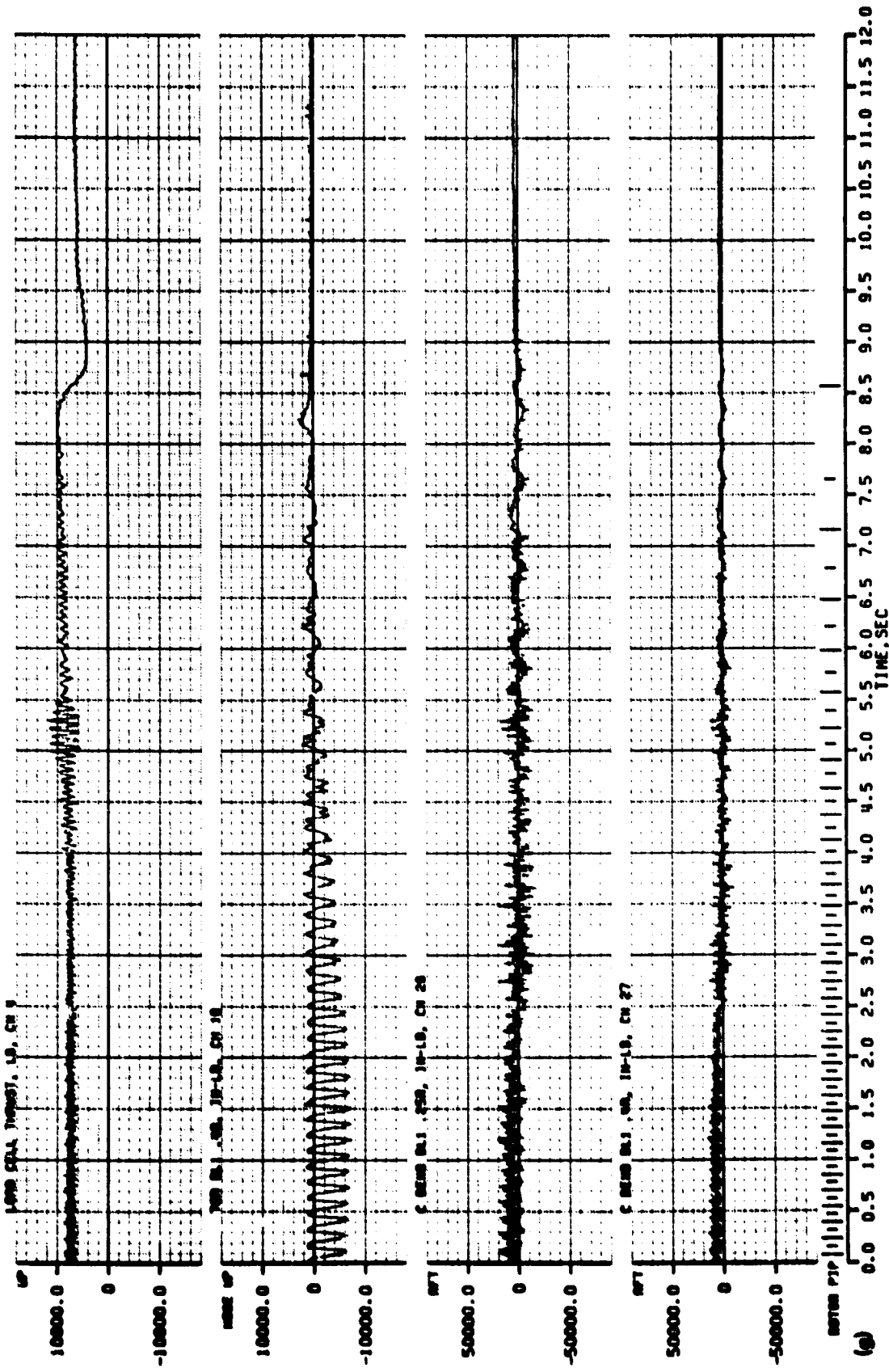


Figure 16.- Continued.

X-WING 40260 WT 180X COMV MODE STOP ALF=2 TH0=-5 PP=8.8 X2P=
 TEST 538 RUN 43 POINT 9

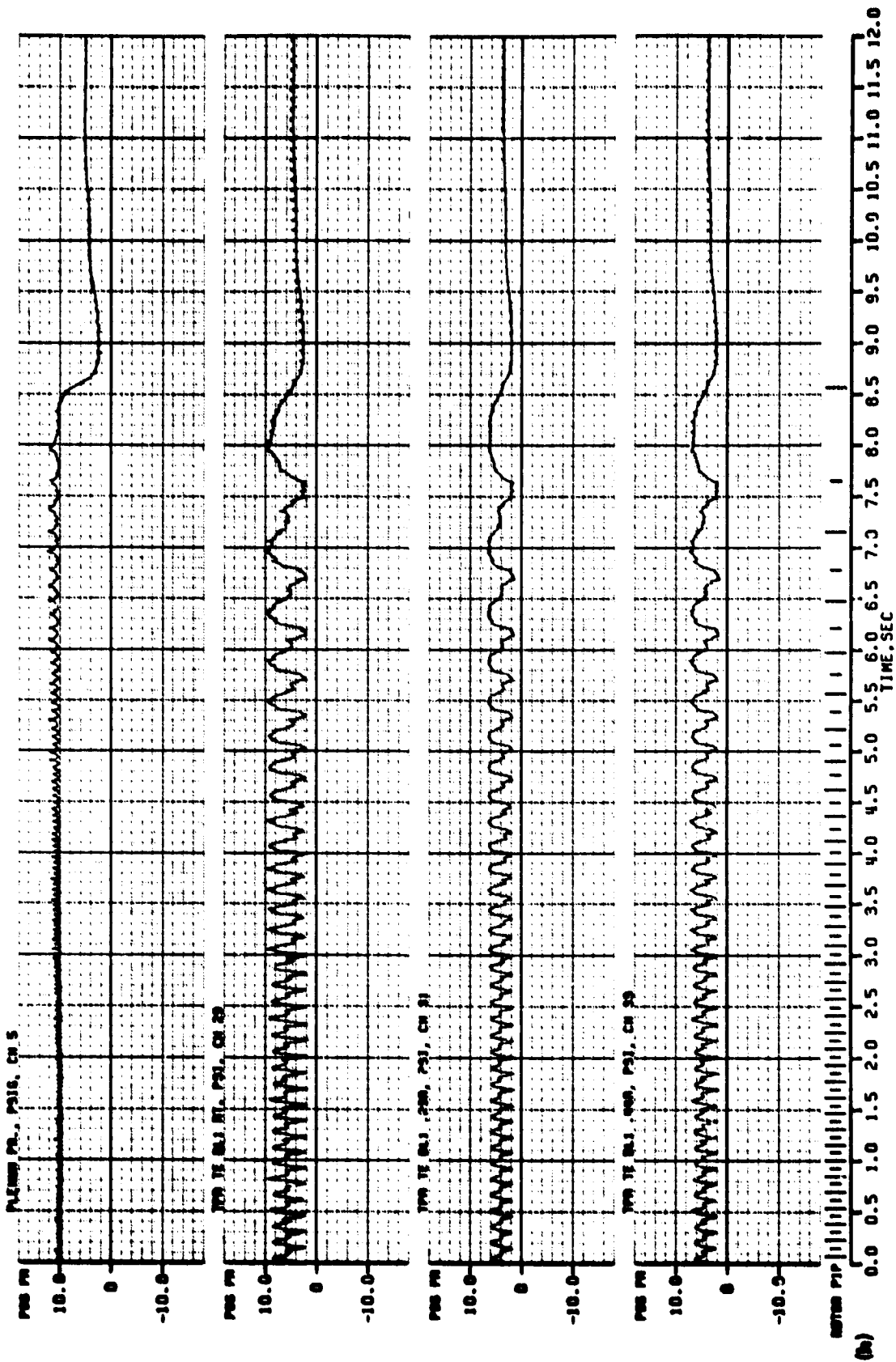


Figure 16.- Continued.

X-RING 40X80 WT 180X CONV MODE STOP ALF-2 THD--5 PP-6.8 X2P-

TEST 539 RUN 43 POINT 9

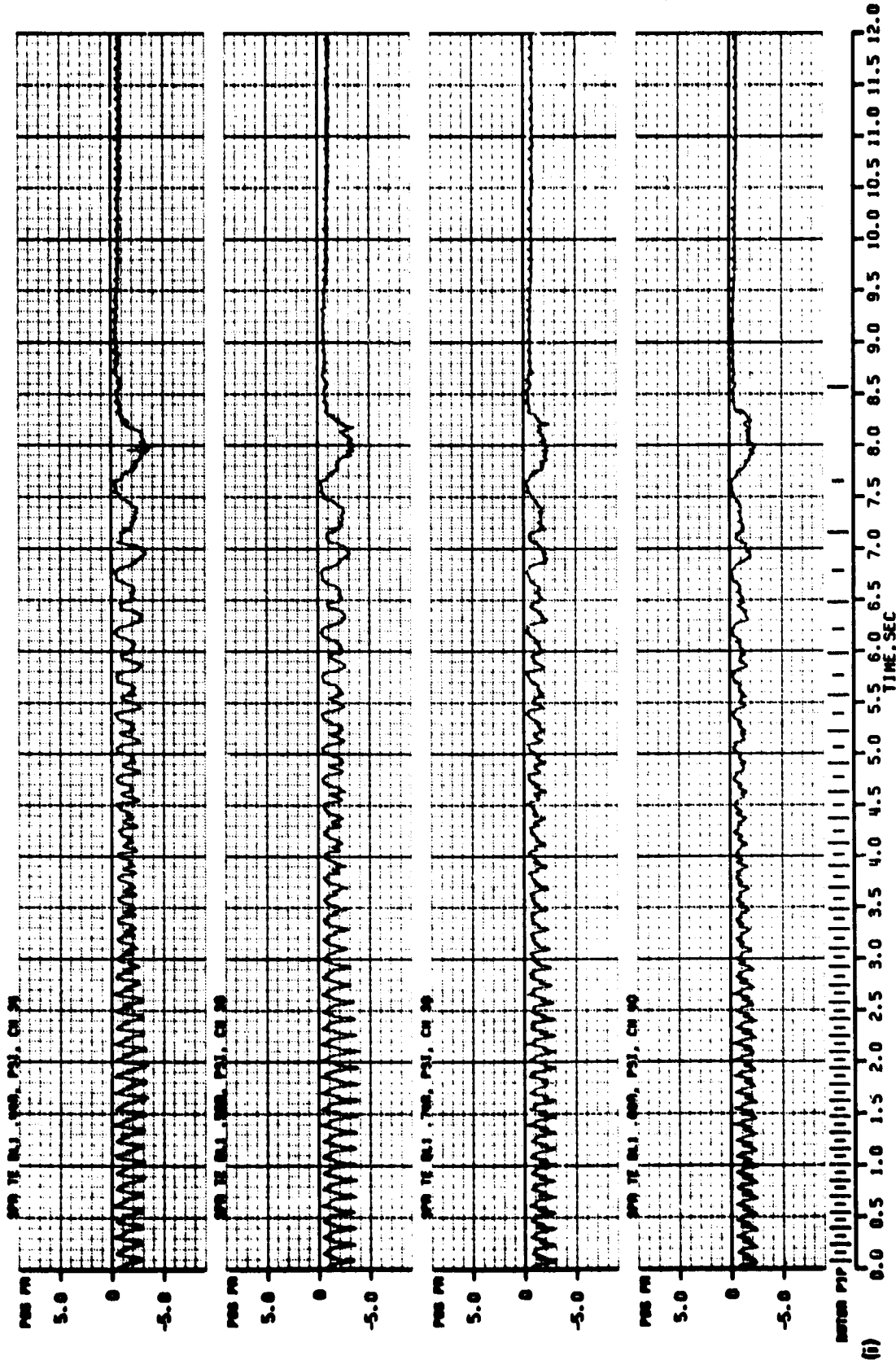


Figure 16.- Continued.

X-MING 40160 MT 180K CONV MODE STOP ALF=2 TH0=-5 PP=8.8 X2P=

TEST 539 RUN 43 POINT 9

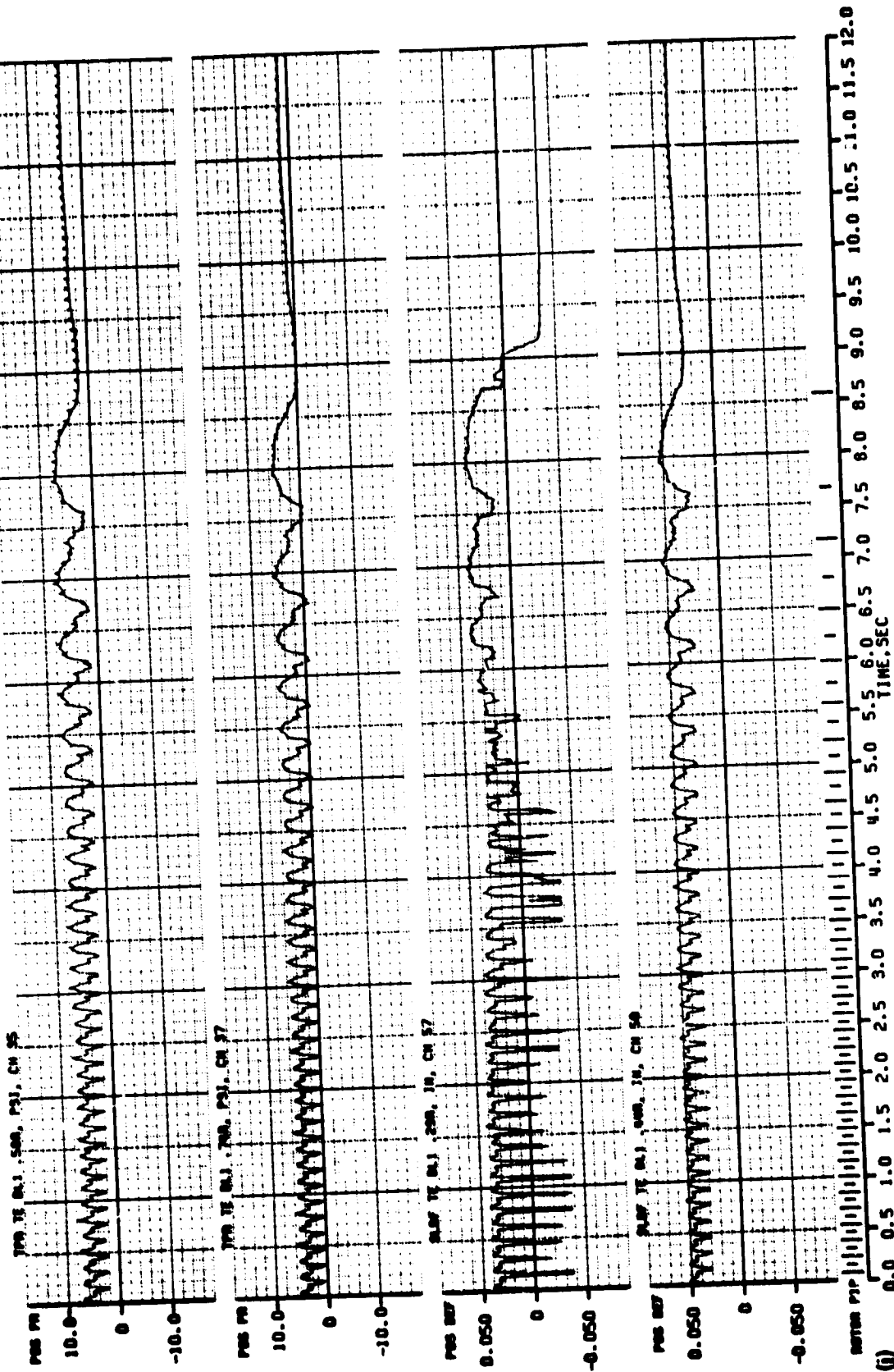


Figure 16.- Continued.

X-MING 40180 MT 180K CONV MODE STOP ALF-2 TH0-5 PP-8.6 X2P-

TEST 539 RUN N3 POINT 9

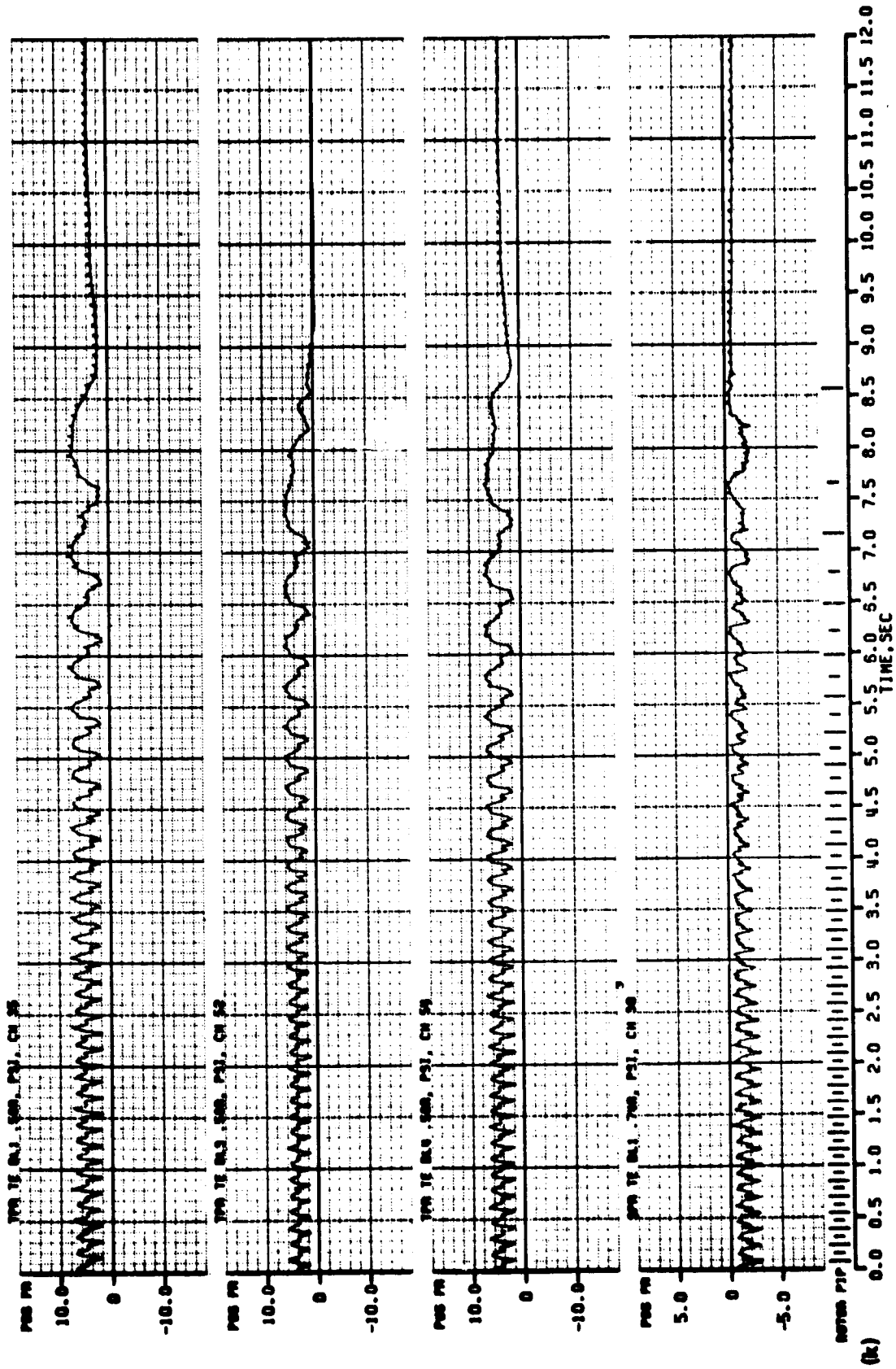


Figure 16.- Continued.

X-MING NOX60 MT 180K CONV MODE STOP ALF-2 TH0--5 PP-6.8 X2P=

TEST 539 RUN 43 POINT 9

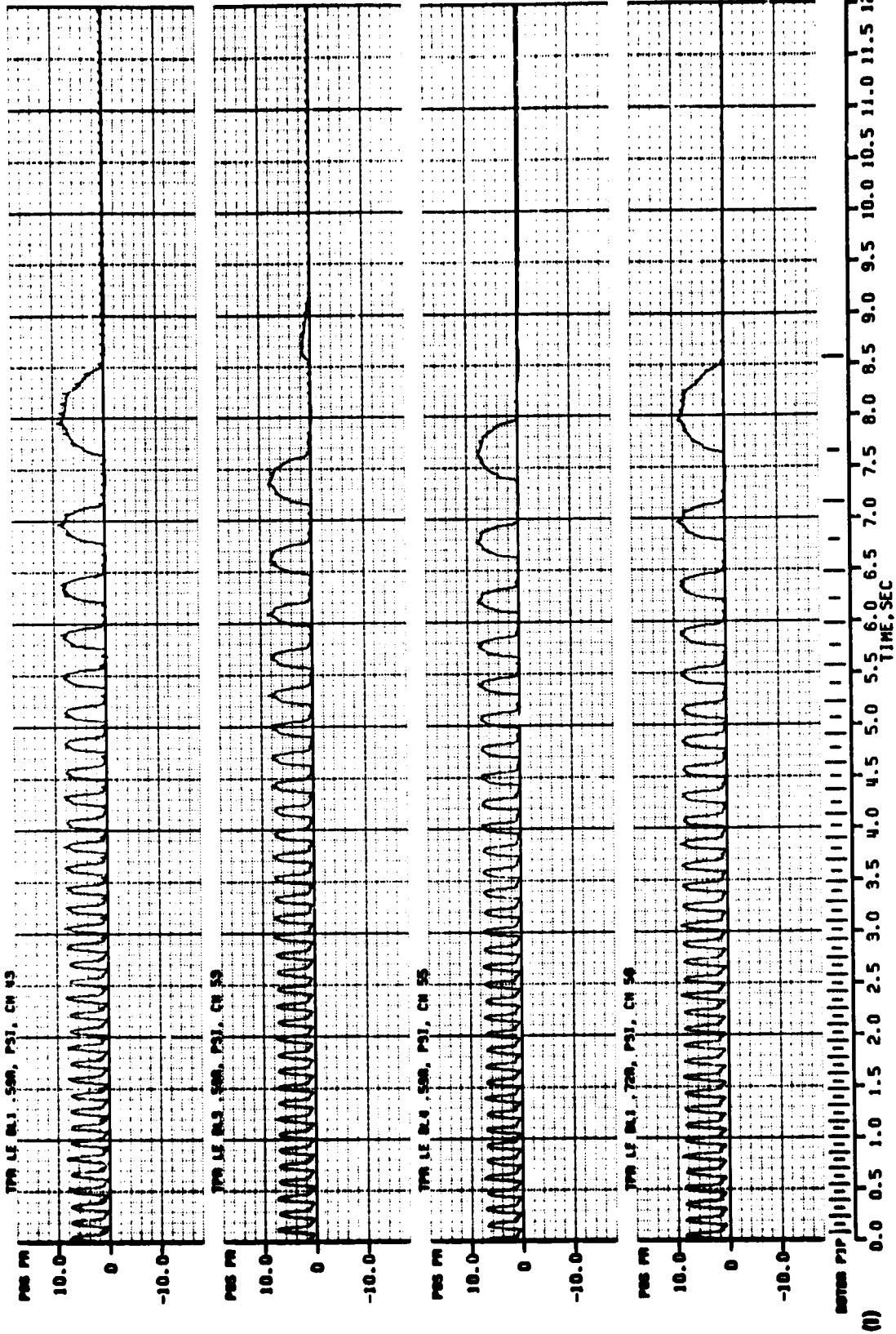


Figure 16.- Continued.

X-RING 40100 NT 100X CONV MODE STOP ALF-2 TH0--5 PP-0.8 X2P-

TEST 539 RUN 03 POINT 9

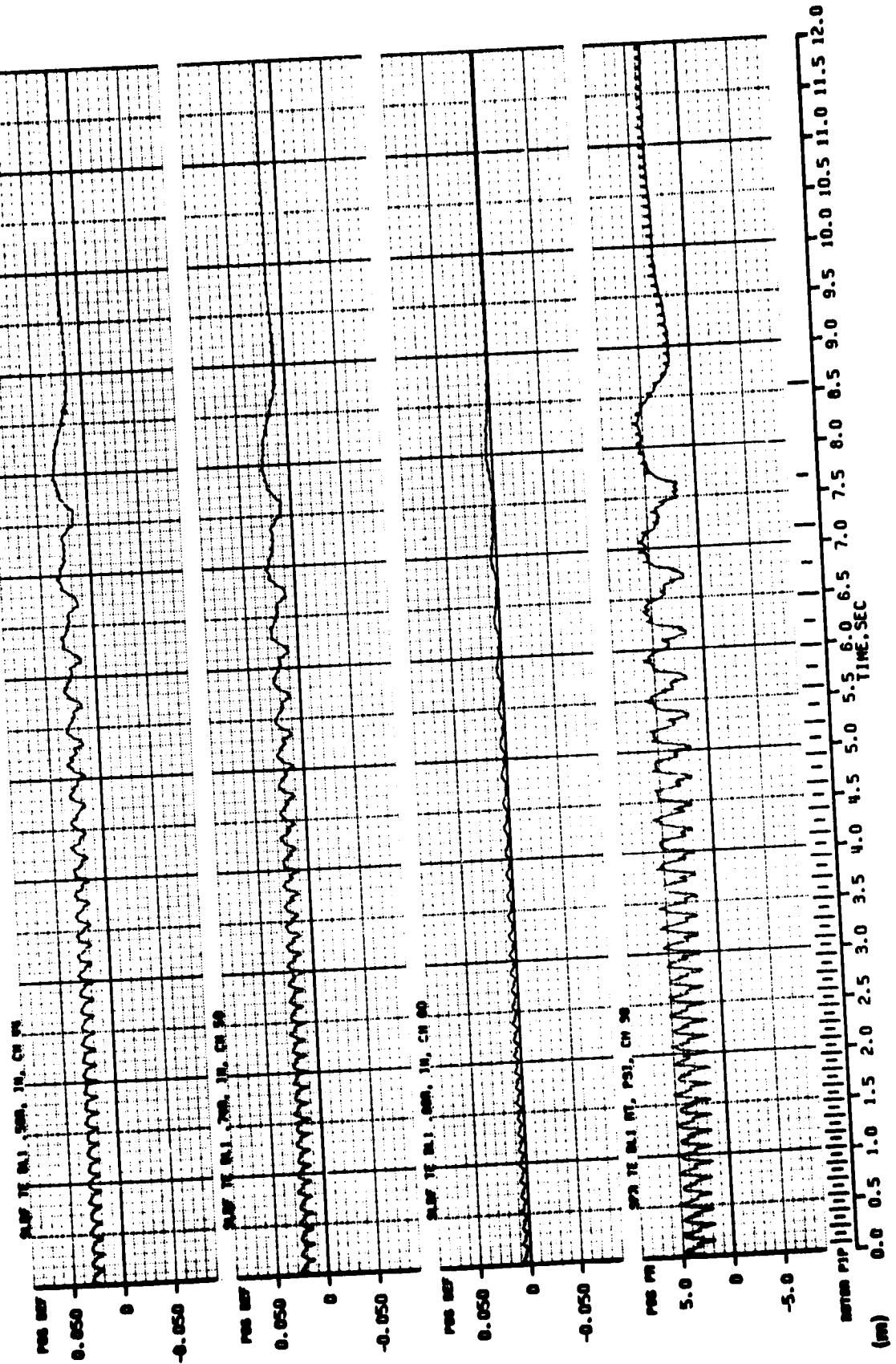


Figure 16.- Concluded.

X-WING ROTARY W/ CONV MODE STOF ALF=3 THO=5 PP=8.8 X2P=-1

TEST 539 RUN 43 POINT 10

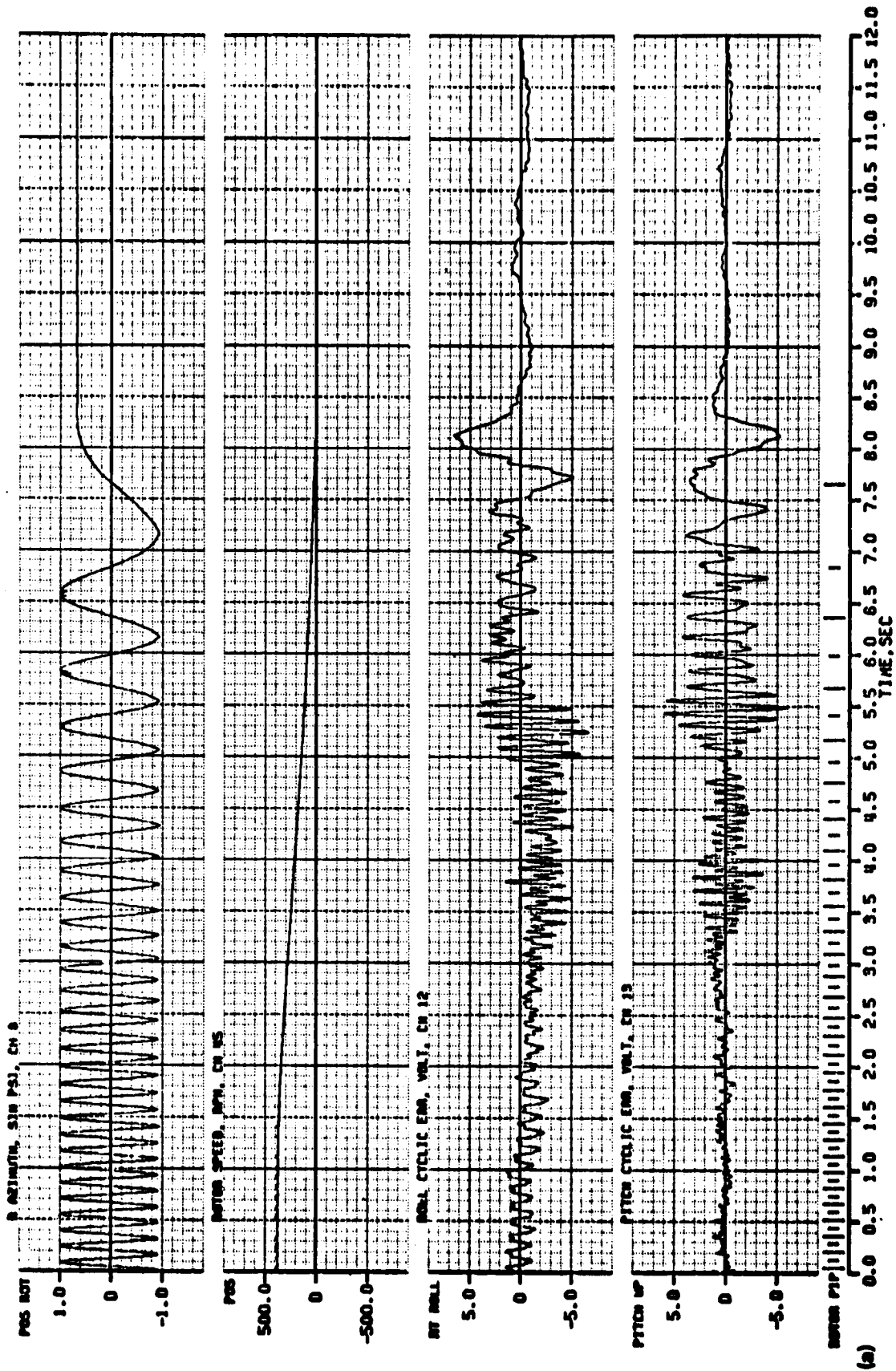
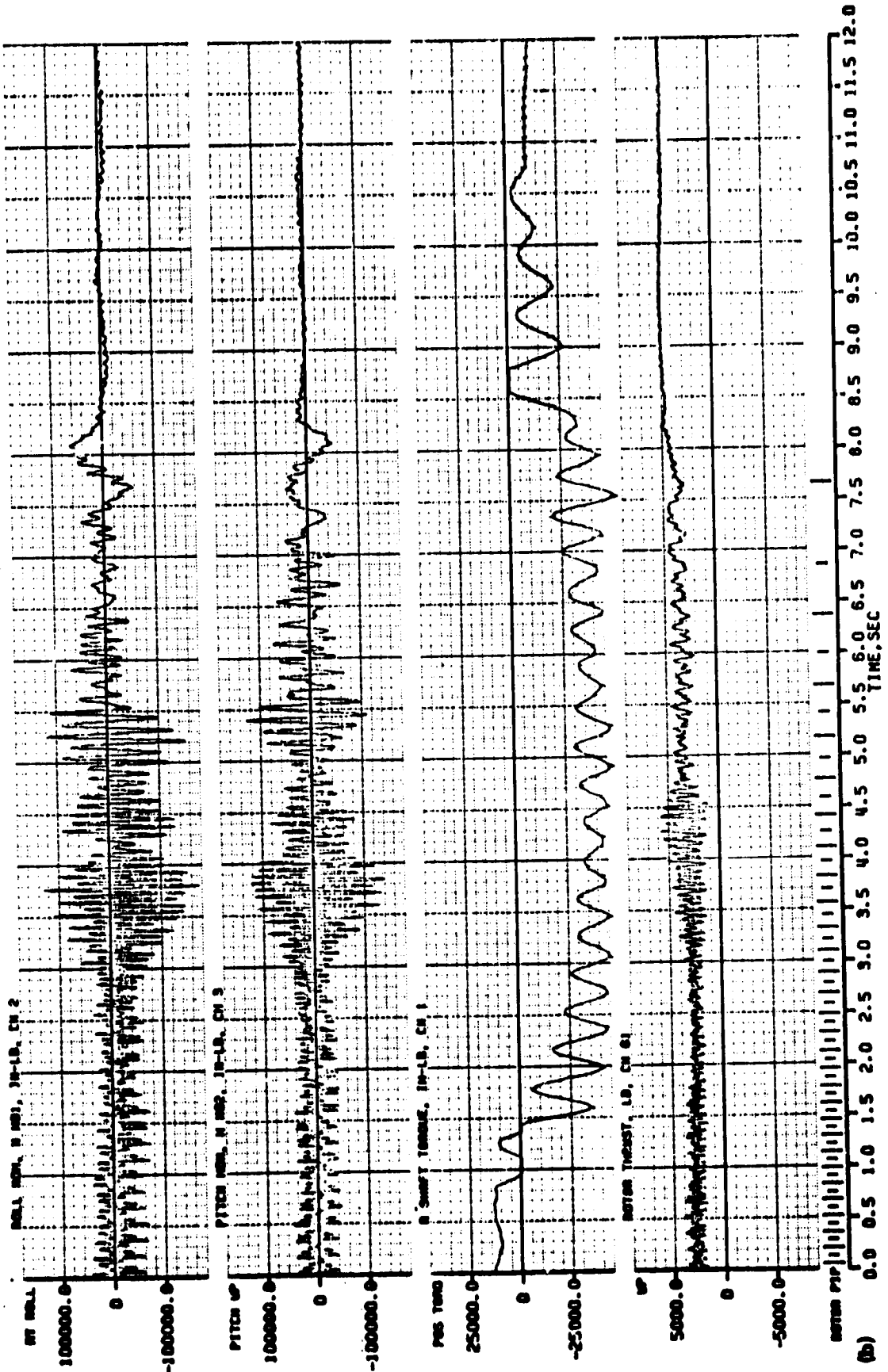


Figure 17.- Time history of run 43, data point 10, rotor transient from rotary-wing to fixed-wing.

X-WING 40X80 MT CONV MODE STOP ALF=3 THO=5 PP=8.8 X2P=-1
 TEST 539 RUN 43 POINT 10



X-WING W0X60 WT CONV MODE STOP ALF=3 TH0=-5 PP=8.8 X2P=-1

TEST 539 RUN 43 POINT 10

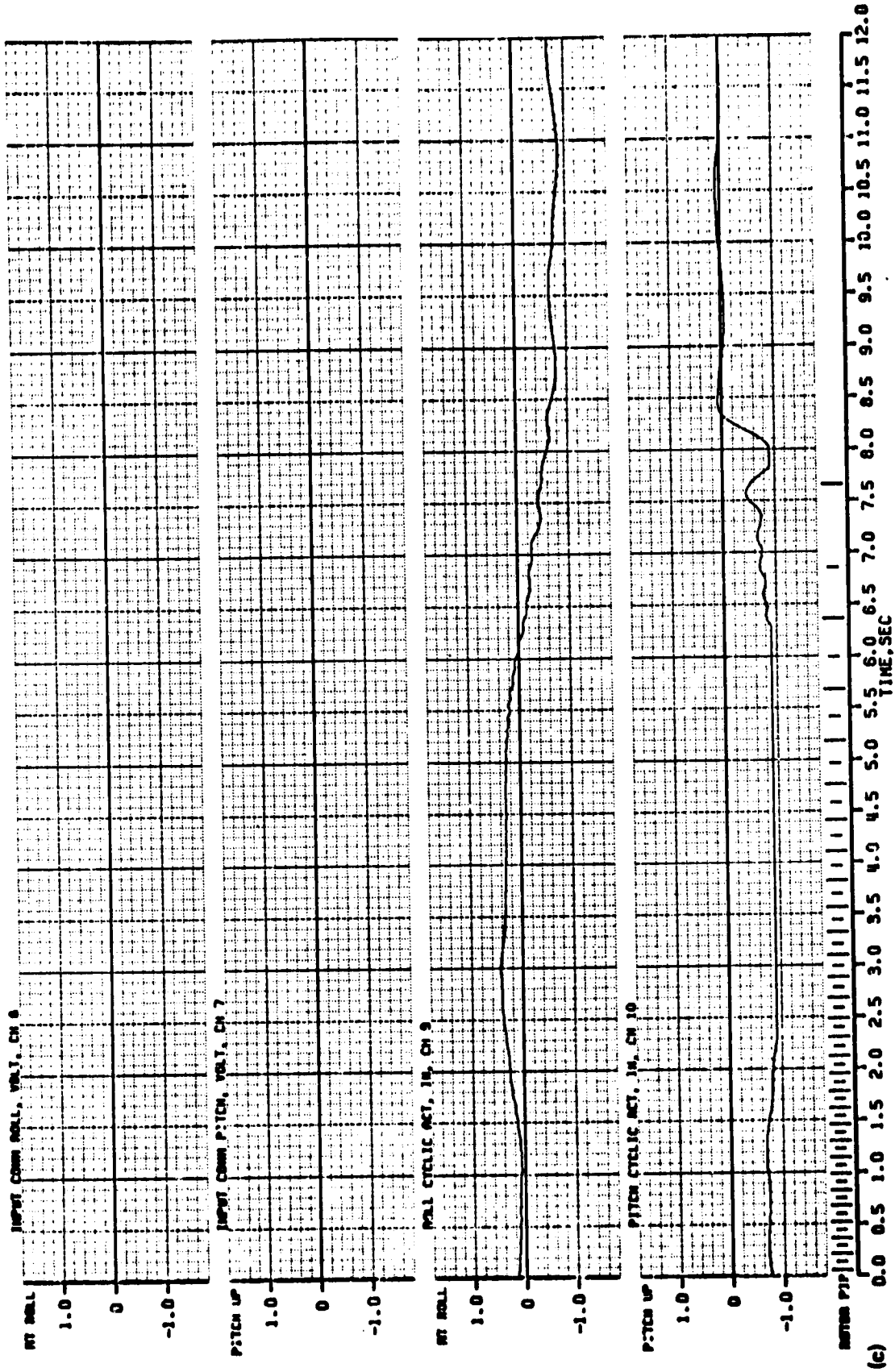


Figure 17.- Continued.

X-MING 40100 WT CONV MODE STOP ALF=3 TMO=5 PP=0.6 X2P=-1

TEST 539 RUN 03 POINT 10

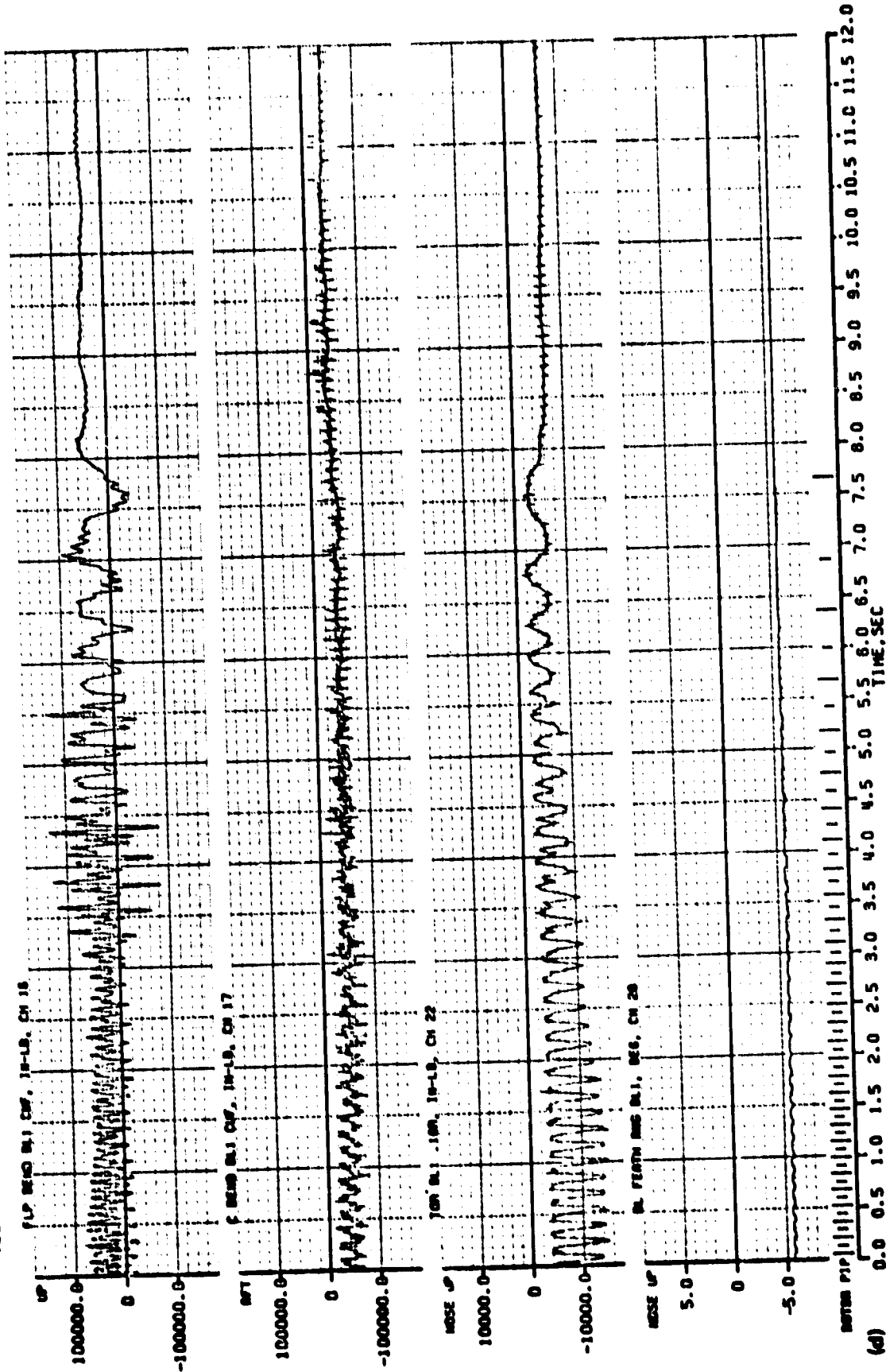


Figure 17.- Continued.

X-WING 40X60 W1 CONV MODE STOP ALF-3 THD--5 PP-8.8 X2P--1
 TEST 539 RUN W3 POINT 10

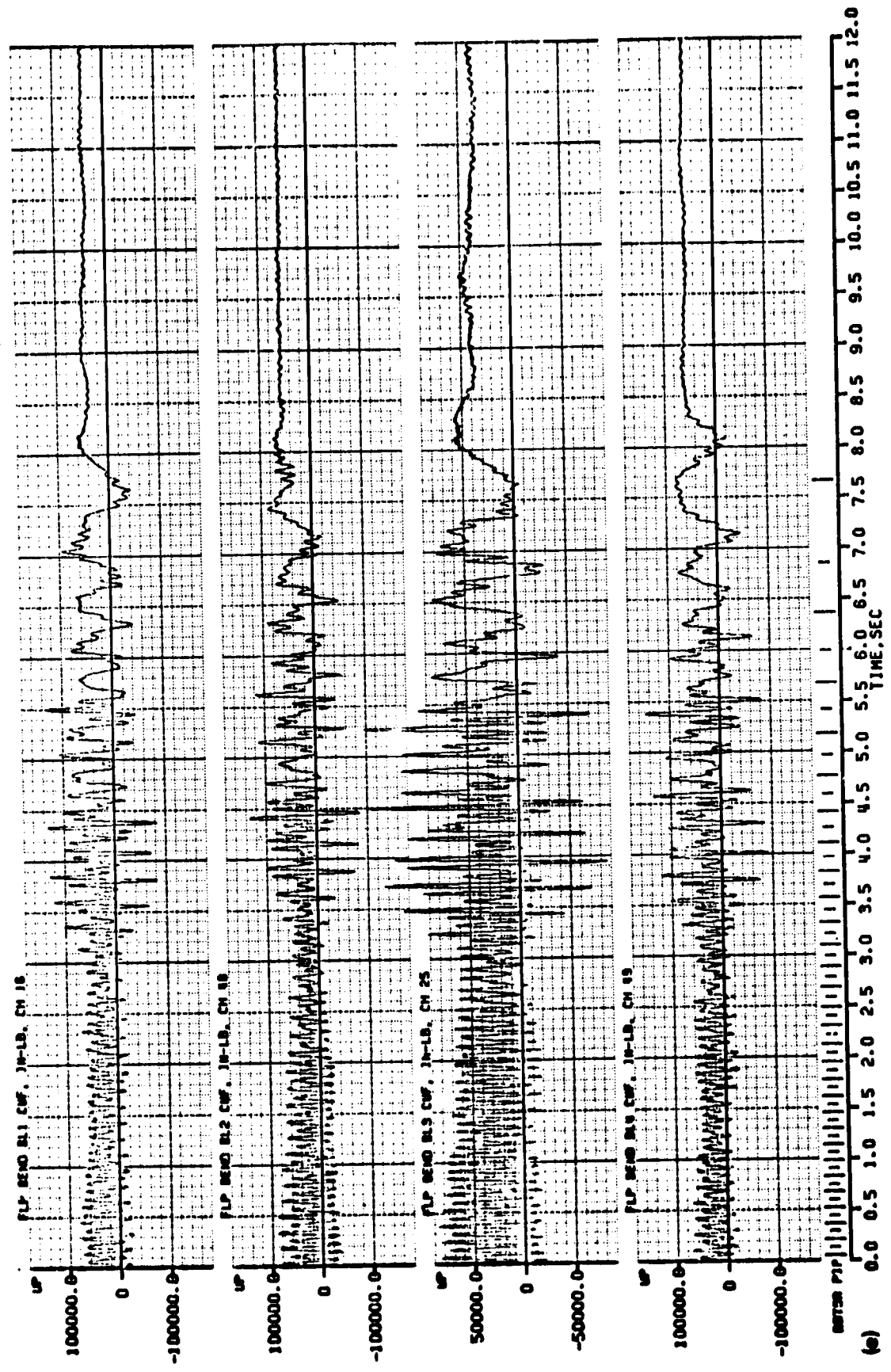


Figure 17.- Continued.

X-MING 40X80 NT CONV MODE STOP PLF=3 THG--5 PP=8.8 X2P=-1

TEST 539 RUN #3 POINT 10

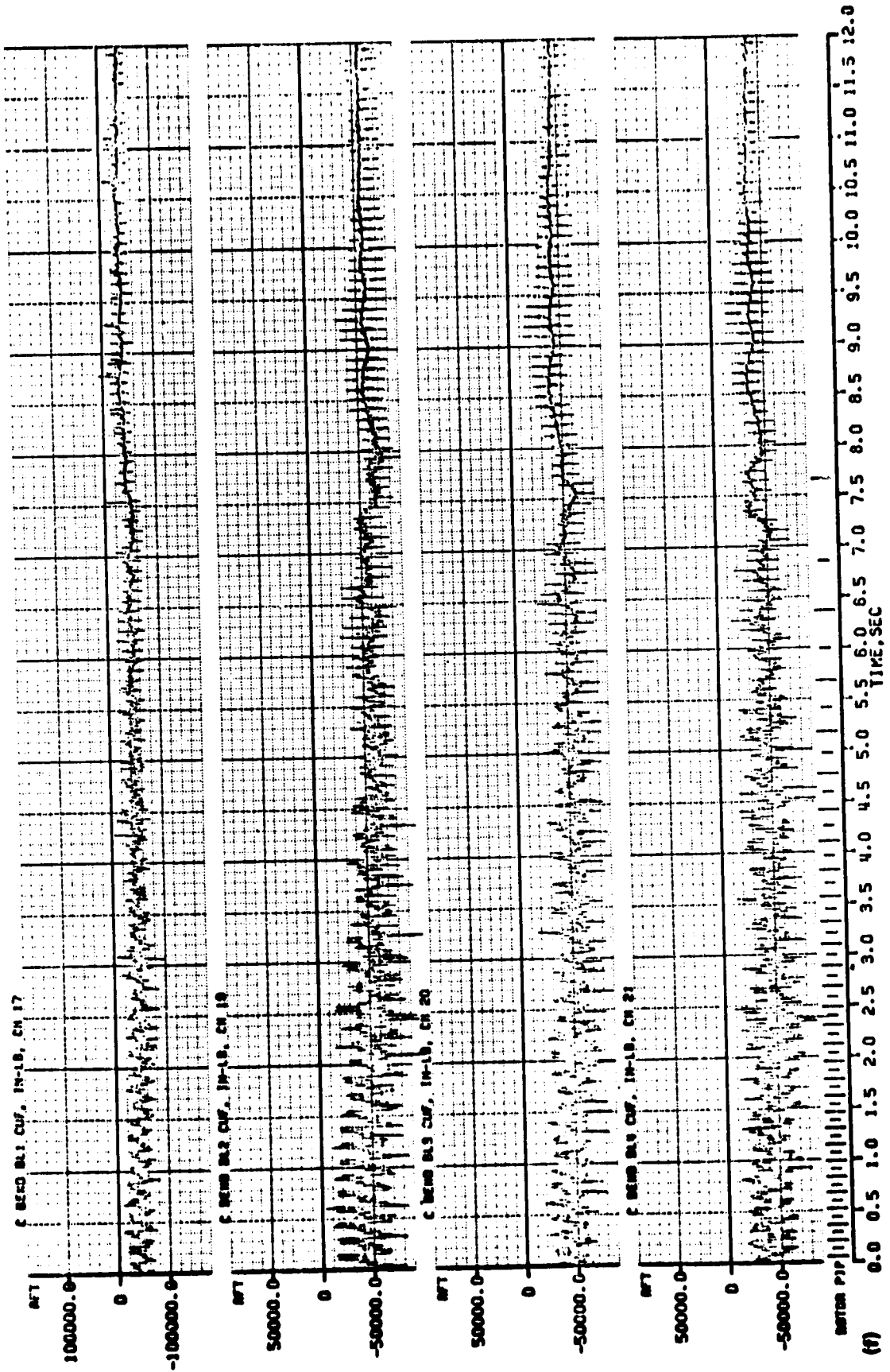


Figure 17.- Continued.

X-RING NOXB0 MT COMV MODE STOP ALF=3 TH0=-5 PP=8.8 X2P=-1

TEST 539 RUN 43 POINT 10

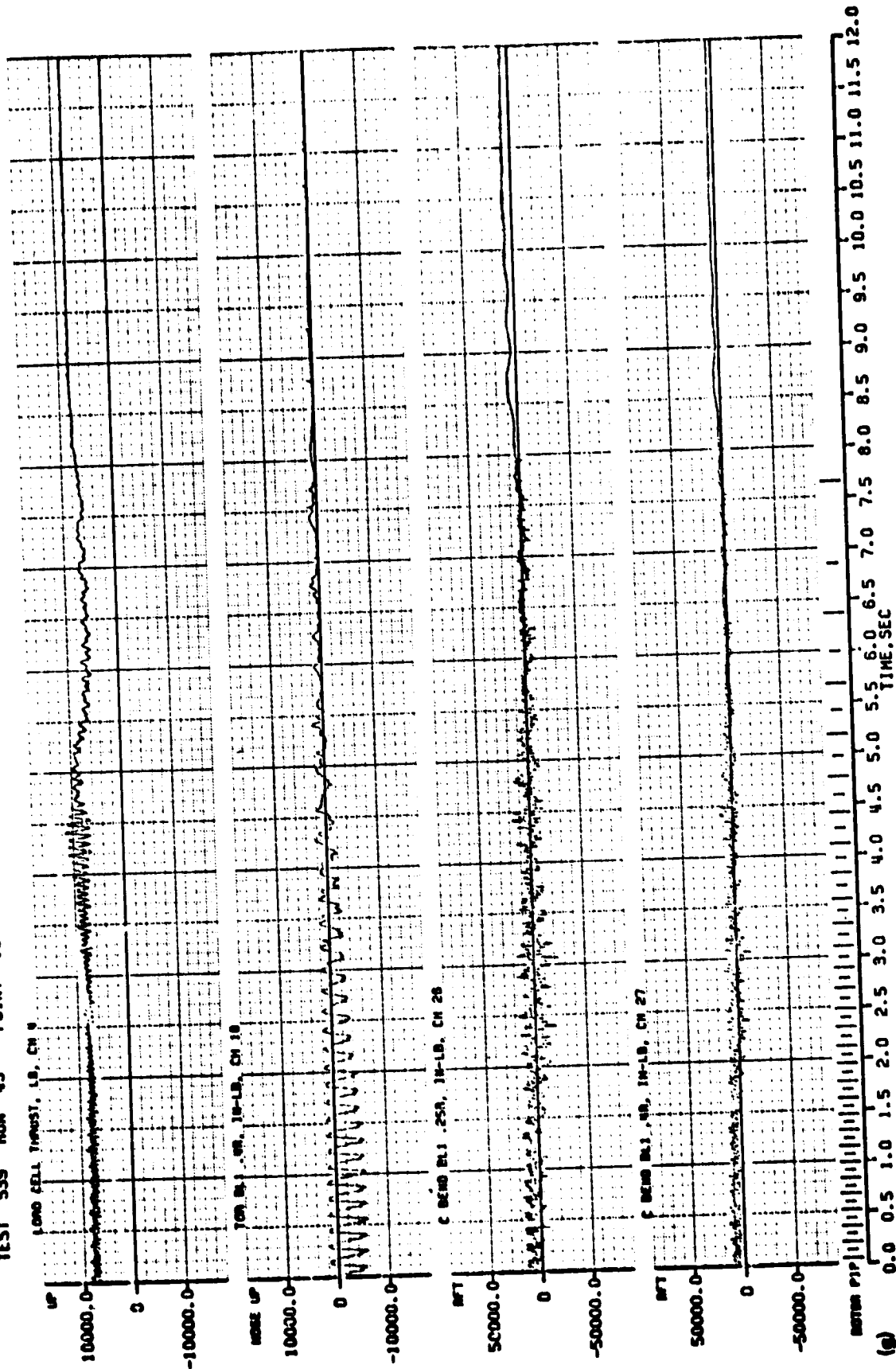


Figure 17.- Continued.

X-NIMS 40X80 MT CONV MODE STCP ALF-3 TMO--5 PP-8.8 X2P--1
 TEST 538 RUN 43 POINT 10

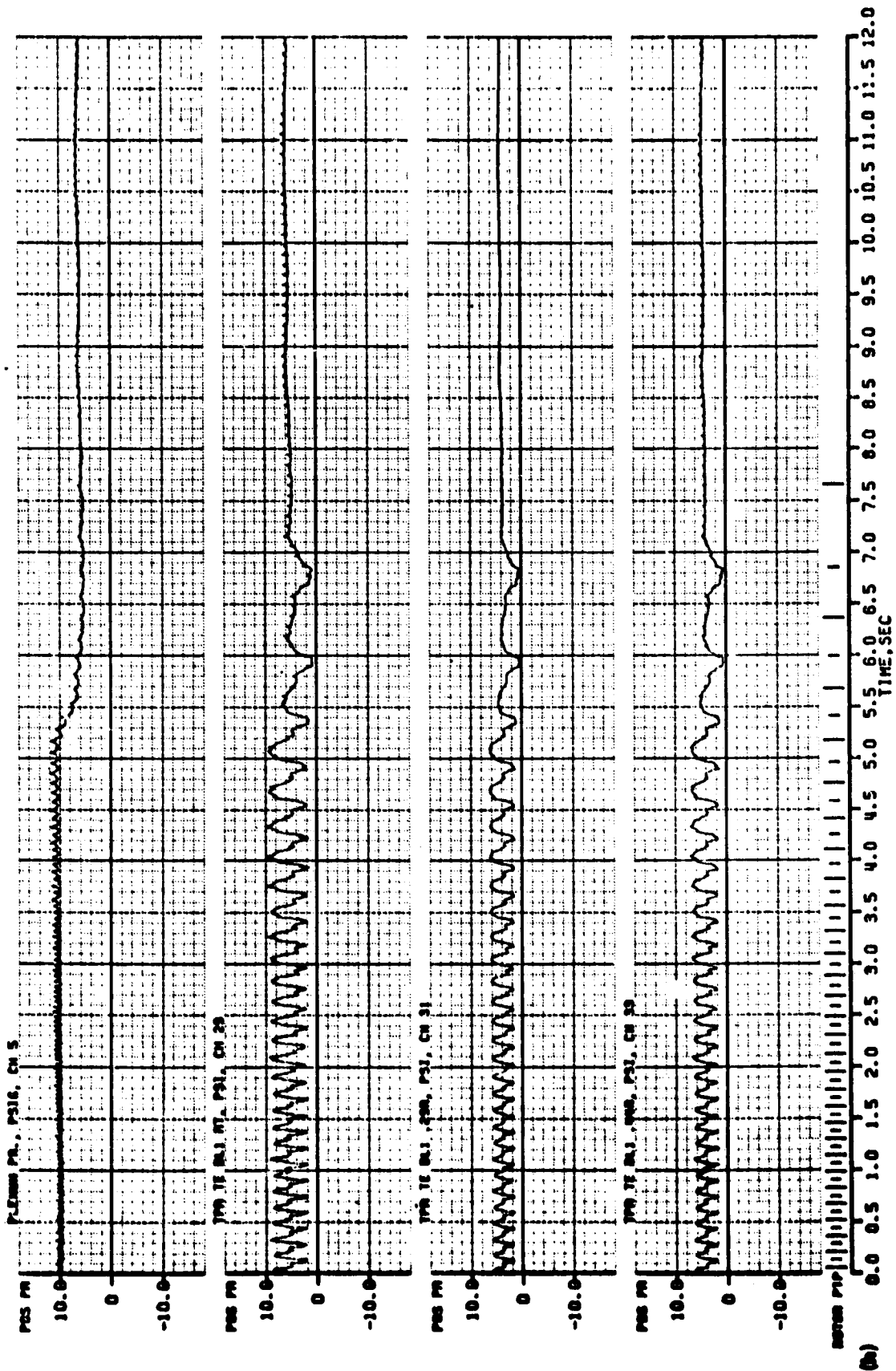


Figure 17.- Continued.

X-MING 40X80 MT CGNV MODE STOP ALF=3 TH0=-5 PP=8.8 X2P=-1

TEST 539 RUN 43 POINT 10

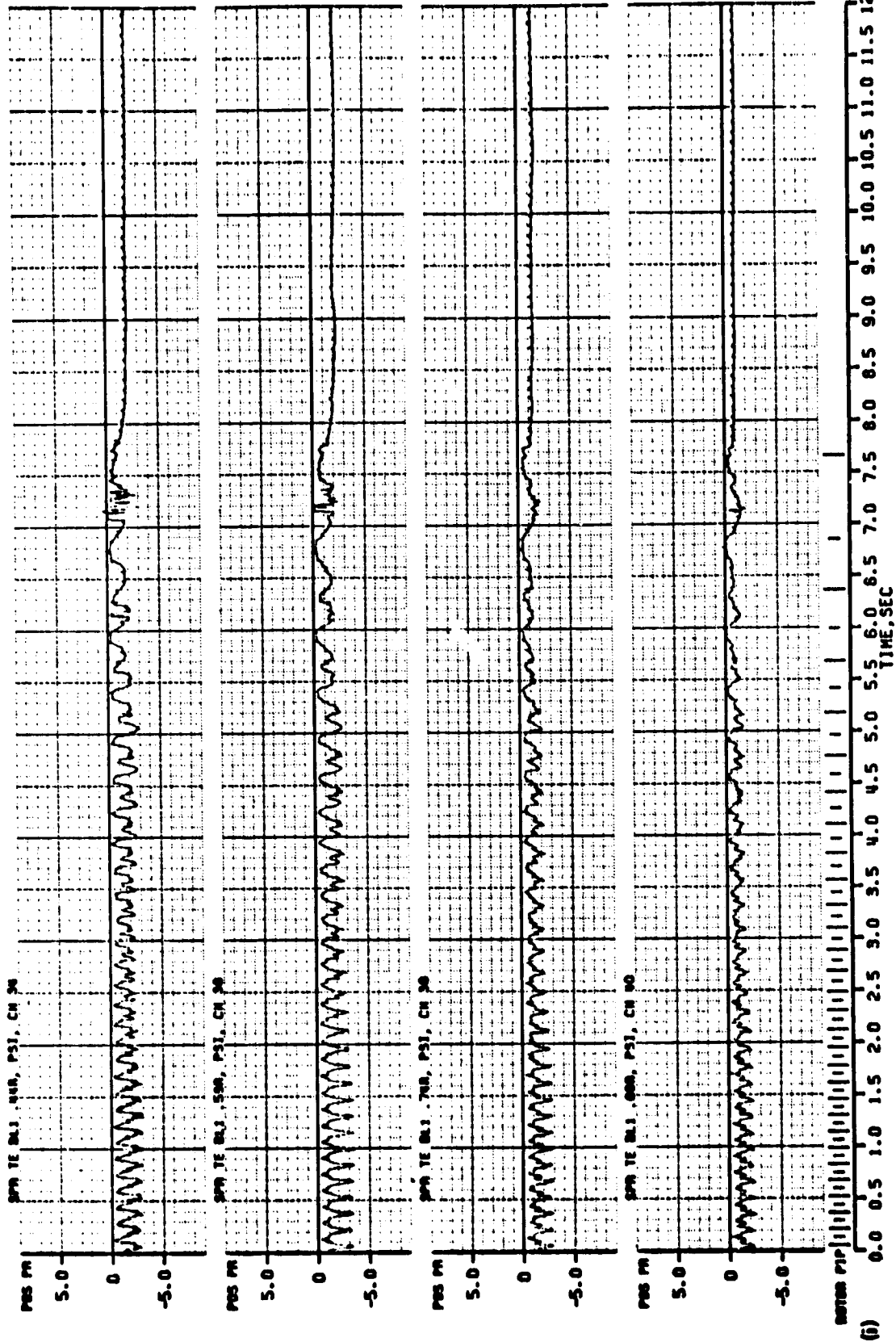
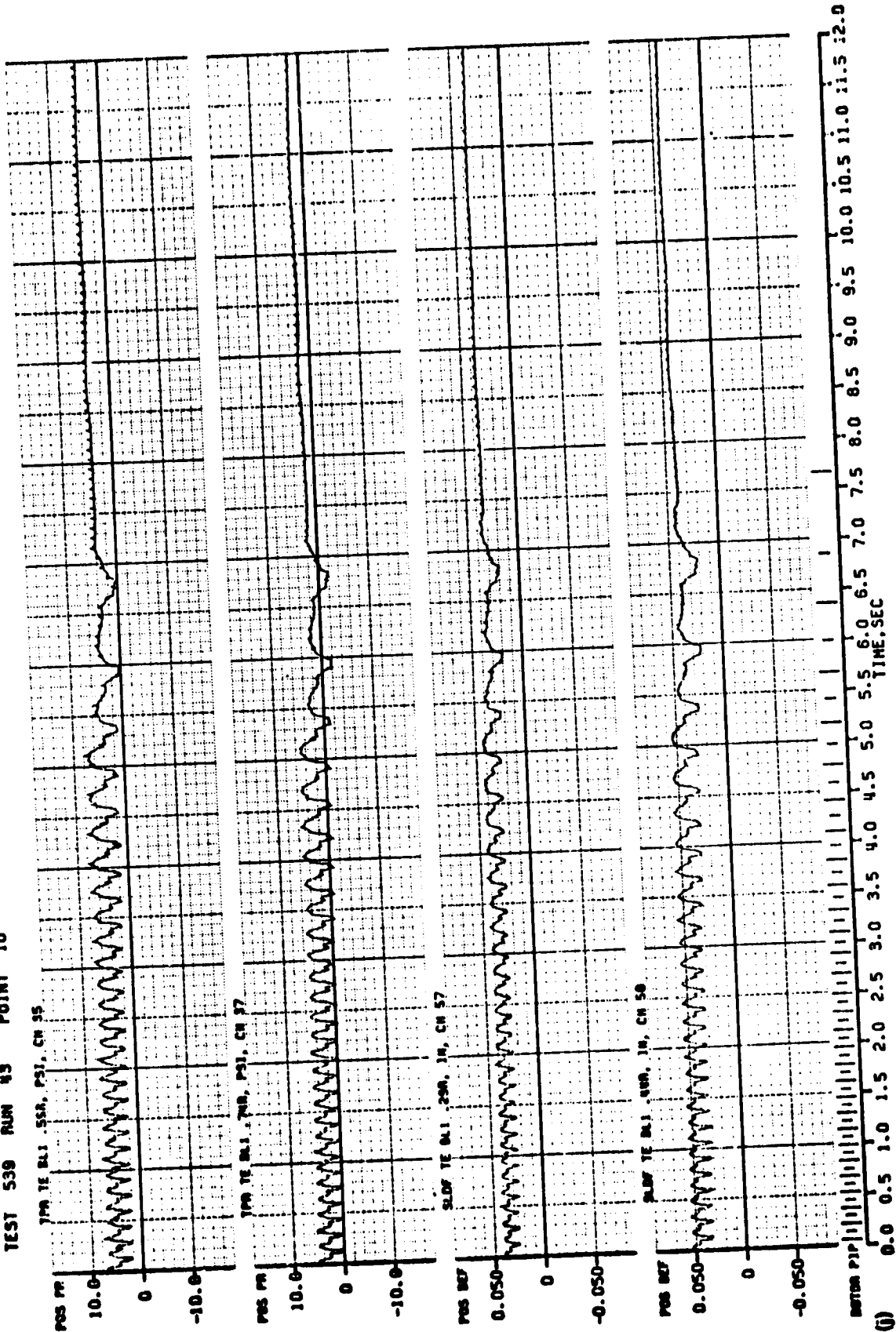


Figure 17.- Continued.

X-RING 80X60 MT CONV MODE STOP ALF-3 TH0--5 PP-8.8 X2P--1

TEST 539 RUN 43 POINT 10



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Figure 17.- Continued.

X-NING 40X60 MT CONV MOCE STCP ALF-3 THG-5 PP-8.8 X2P=-1
 TEST 539 RUN 43 POINT 10

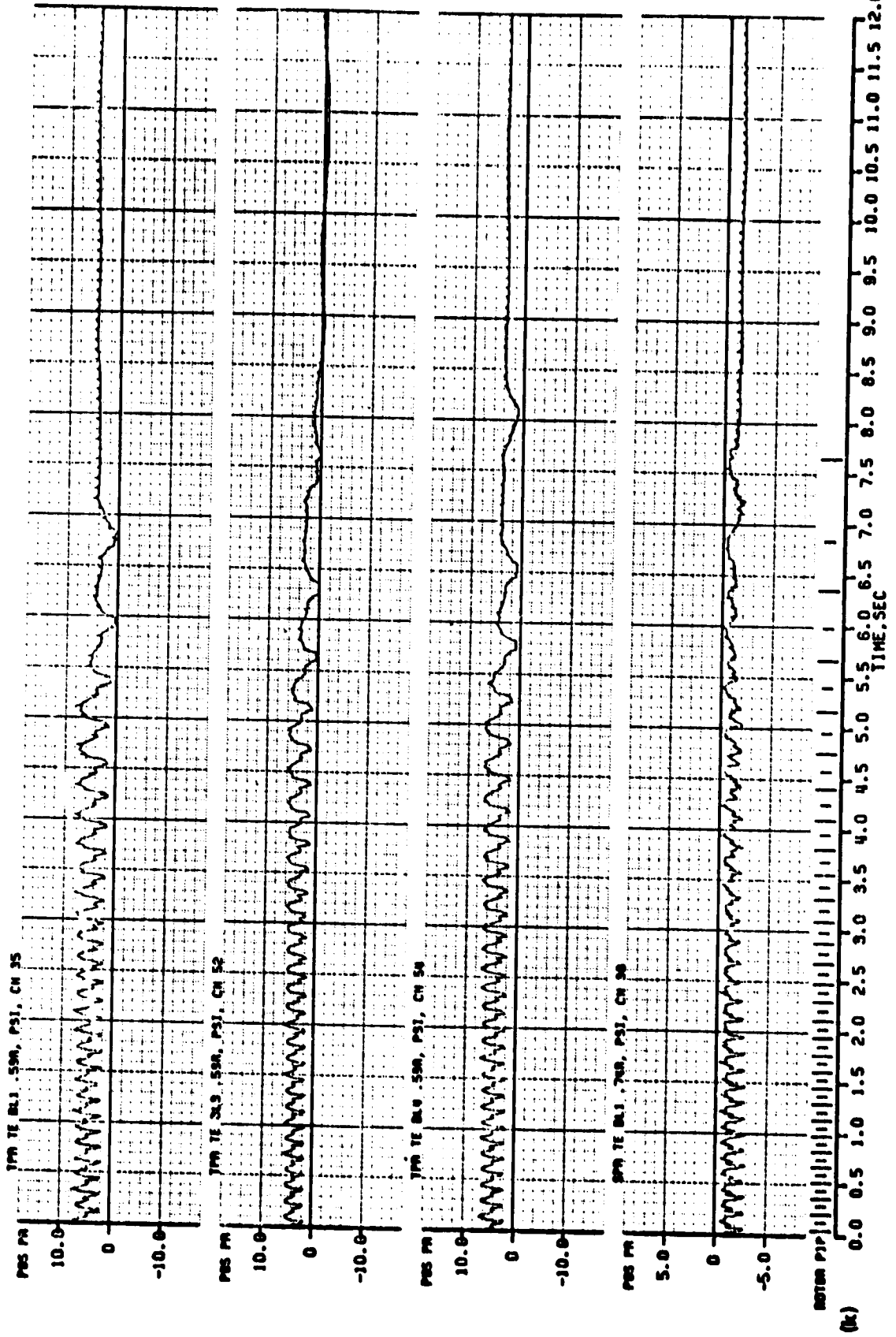


Figure 17. - Continued.

X-WING 40X80 MT CONV MODE STOP ALF=3 TH0=-5 PP=8.8 X2P=-1
 TEST 539 RUN 43 POINT 10

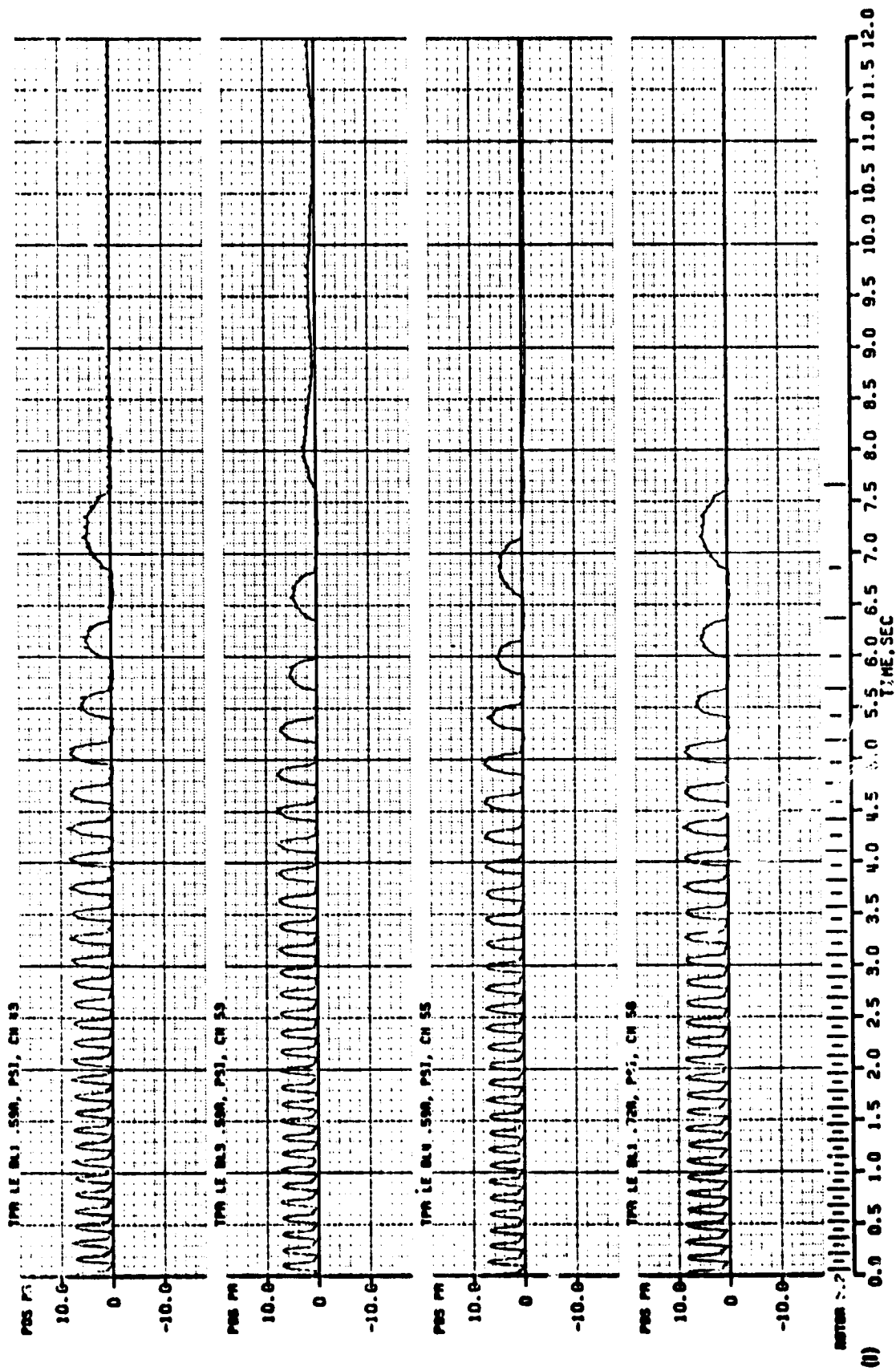


Figure 17.- Continued.

X-WING 40X60 AT CONV MODE STOP ALF=3 TIG=5 PP=3.8 X2P=-1

TEST 539 RUN 43 POINT 10

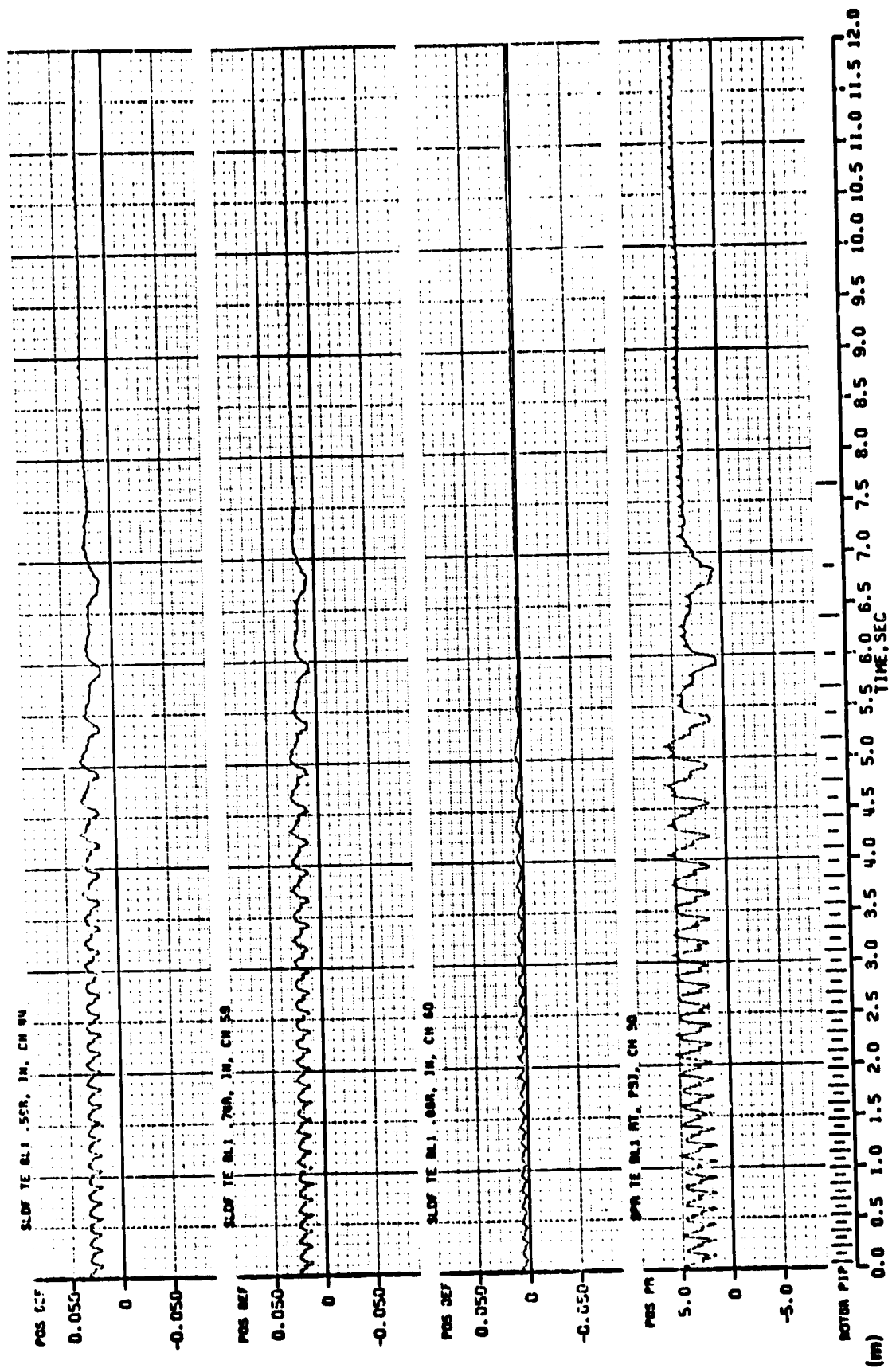
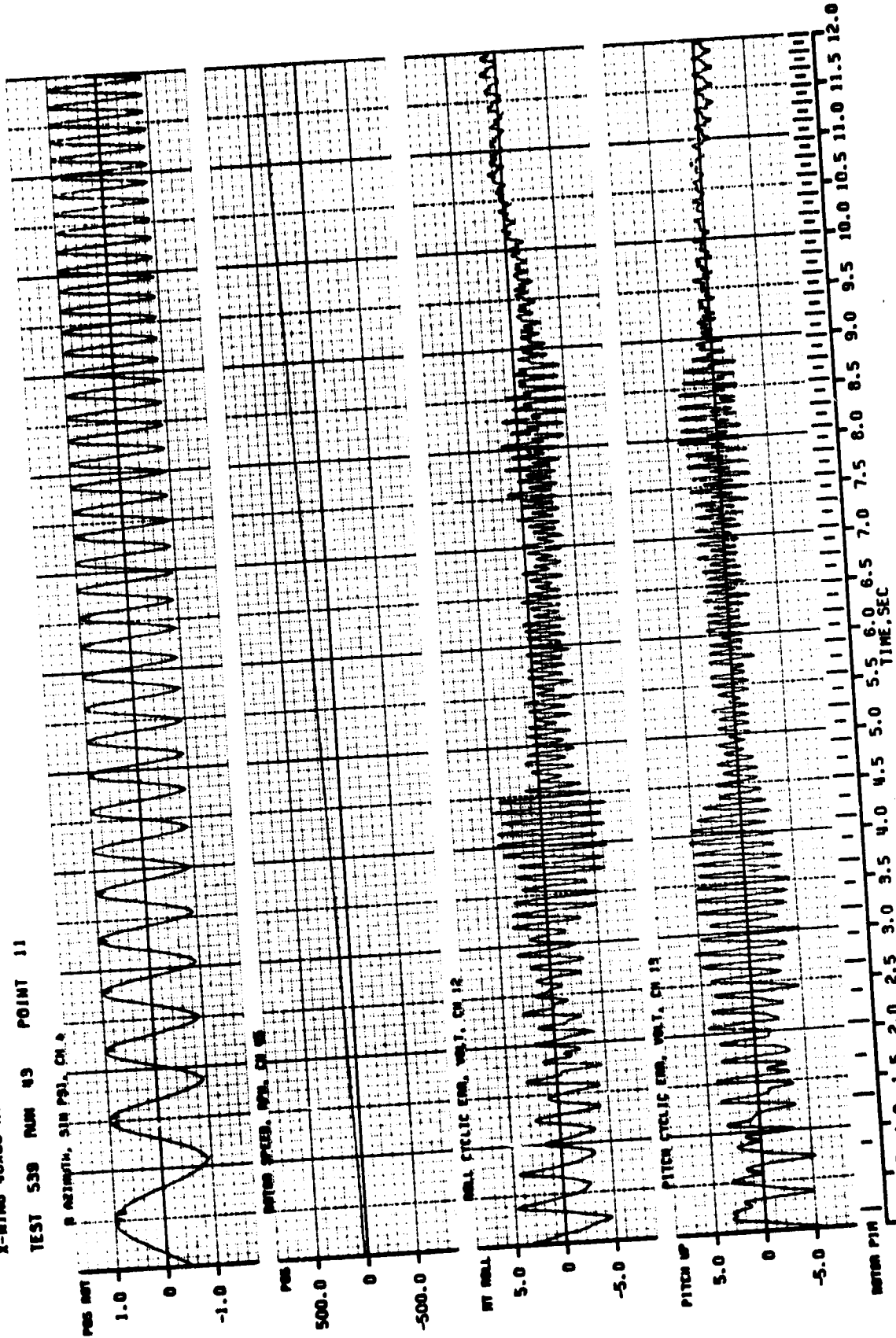


Figure 17.- Concluded.

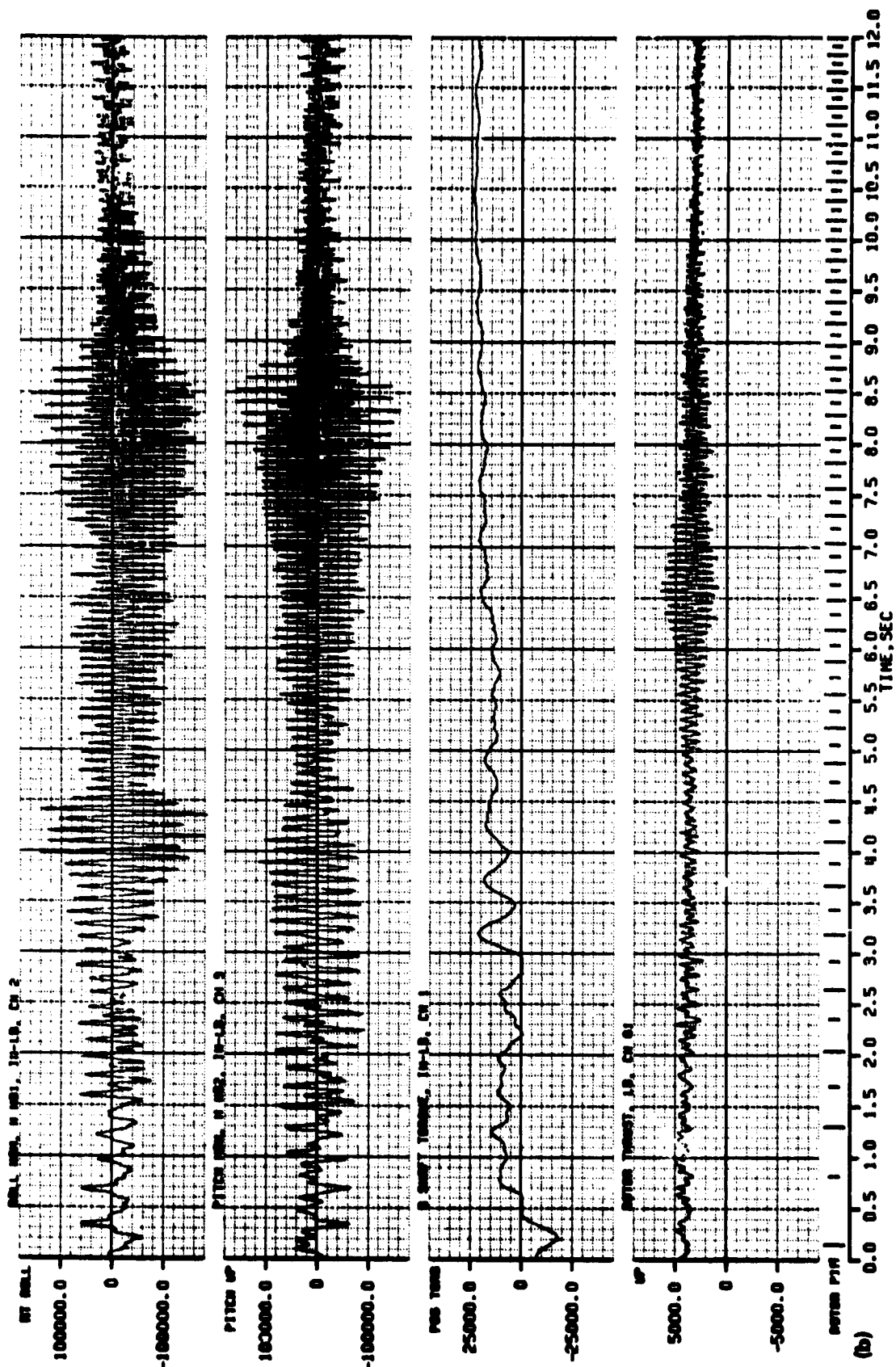
X-WING 40X80 WT 180K CONV MODE START ALF-3 TH0--5 PP-6.6 X2P
 TEST 538 RUN 43 POINT 11



(a) Figure 18.- Time history of run 43, data point 11, rotor transient from fixed-wing to rotary-wing.

X-MING 40180 WT 180K CONV MODE START ALF=3 THD=-5 PP=8.8 X2P

TEST 538 RUN 43 POINT 11



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Figure 18.- Continued.

X-MING 10180 MT 180K CONV MODE START ALF-3 THD--5 PP-8.8 X2P

TEST 599 RUN 43 POINT 11

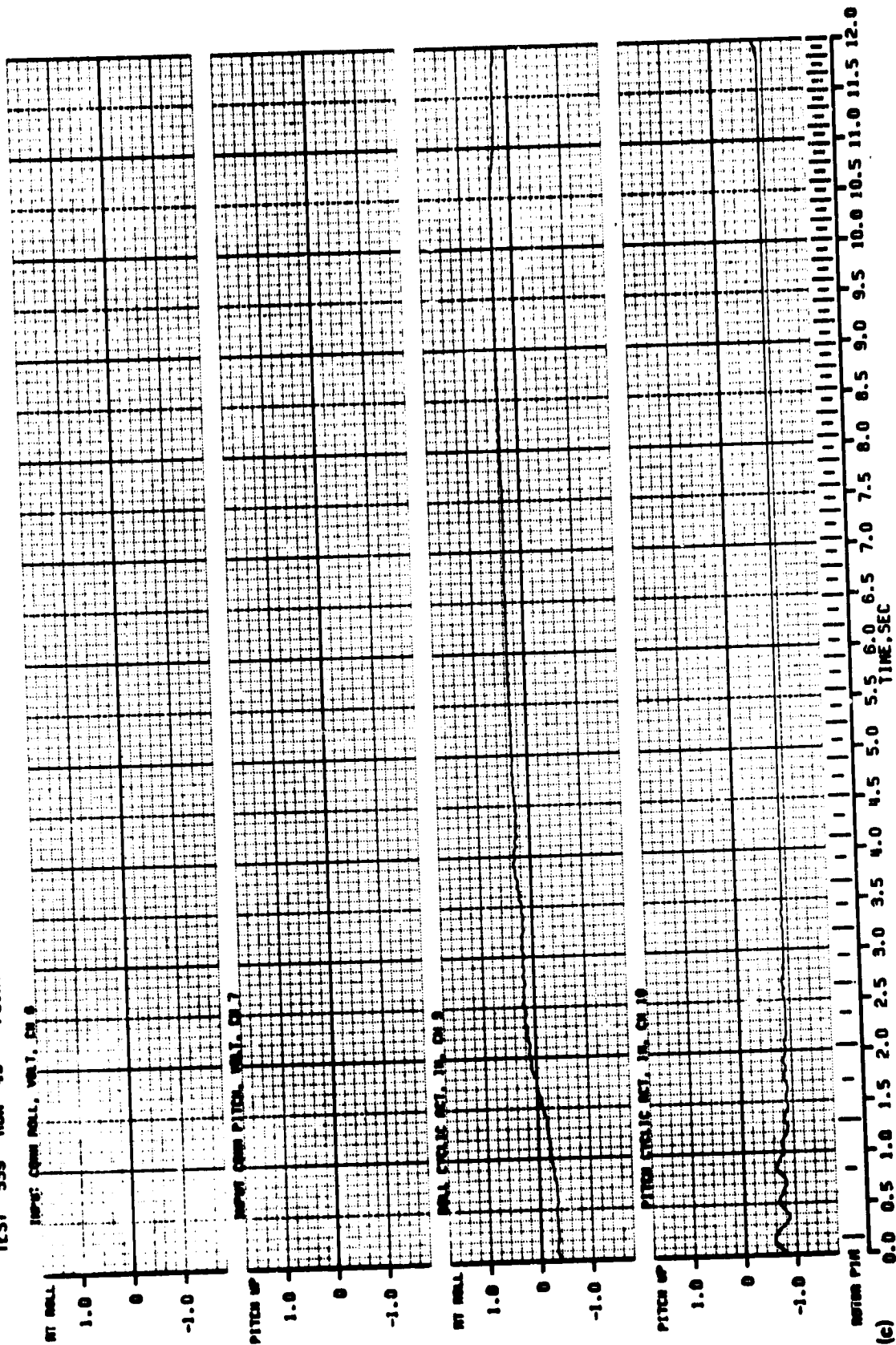
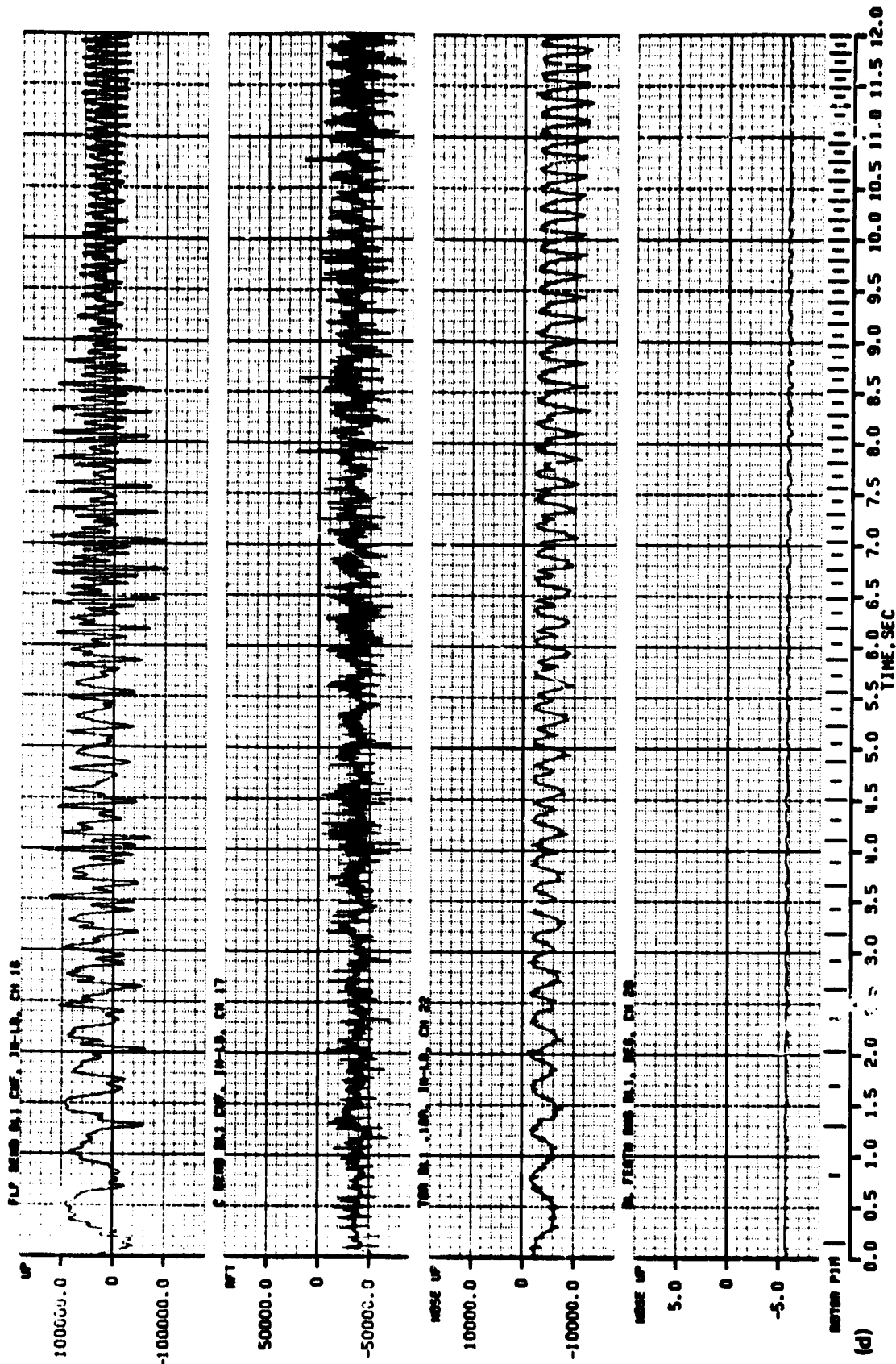


Figure 18.- Continued.

X-NING 40X80 WT 180K CONV MODE START ALF=3 TH0=-5 PP=8.8 X2P

TEST 539 RUN 43 POINT 11



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Figure 18.- Continued.

I-MING 40X60 WT 180K CONV MODE STRAT ALF=3 TH0--5 PP=6.8 X2P

TEST 539 RUN 43 POINT 11

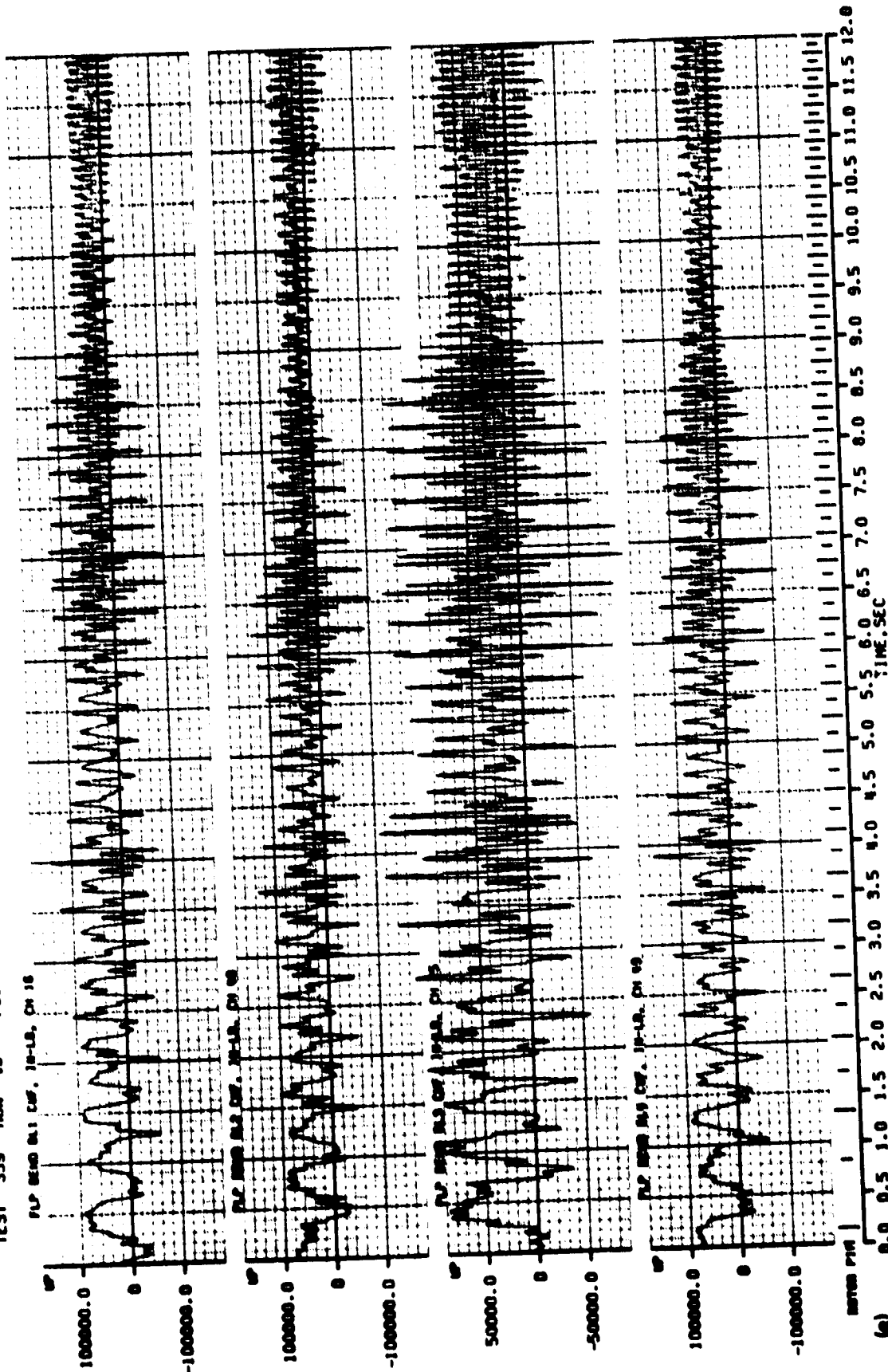
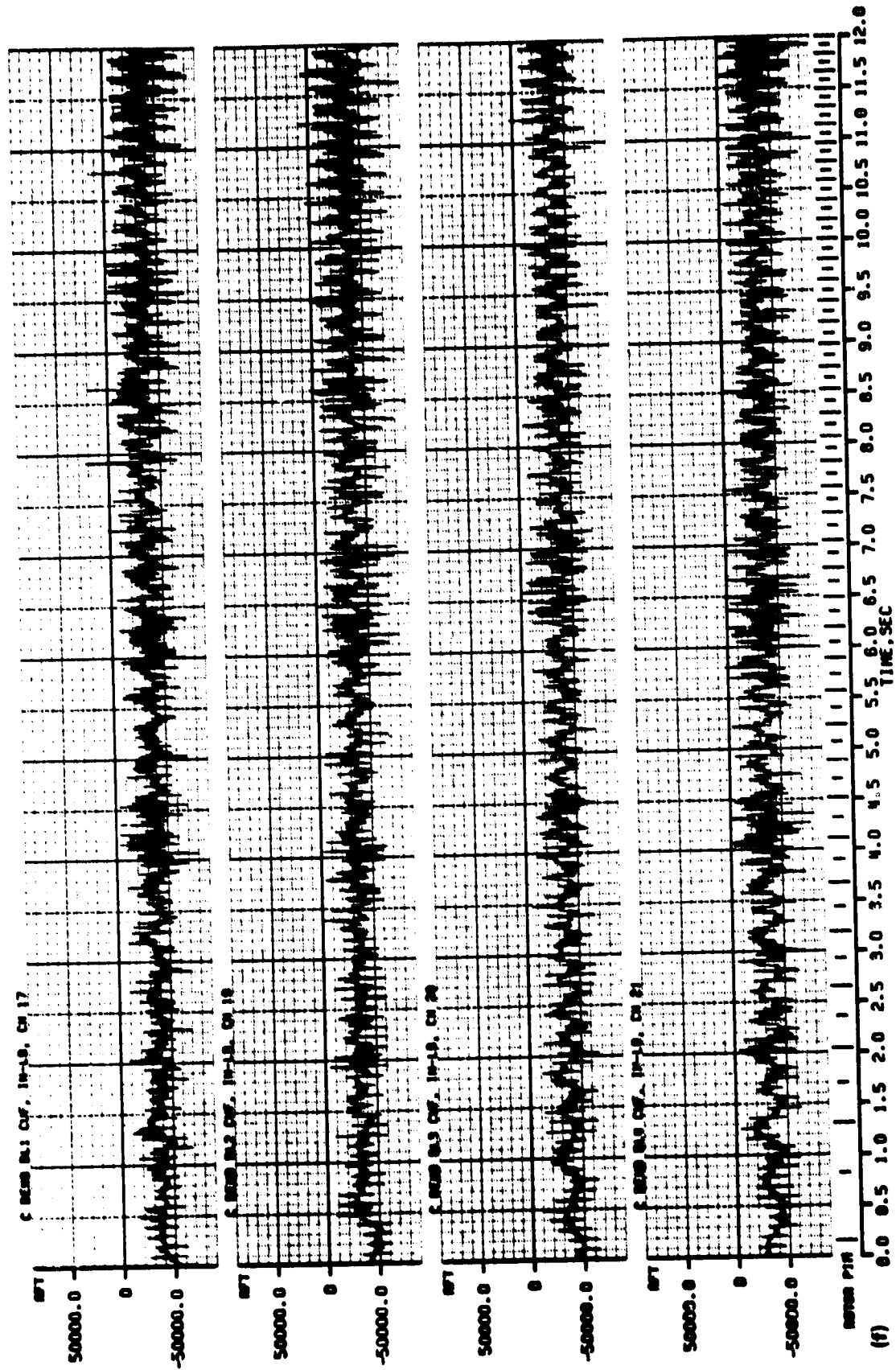


Figure 18.- Continued.

X-MING 40180 WT 180K CONV MODE START ALF=3 TMO--5 PP=8.8 X2P

TEST 539 RUN 03 POINT 11



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Figure 18.- Continued.

X-WING 40100 MT 180K CONV MODE START ALF-3 TMO--5 PP-8.8 X2P

TEST 539 RUN 43 POINT 11

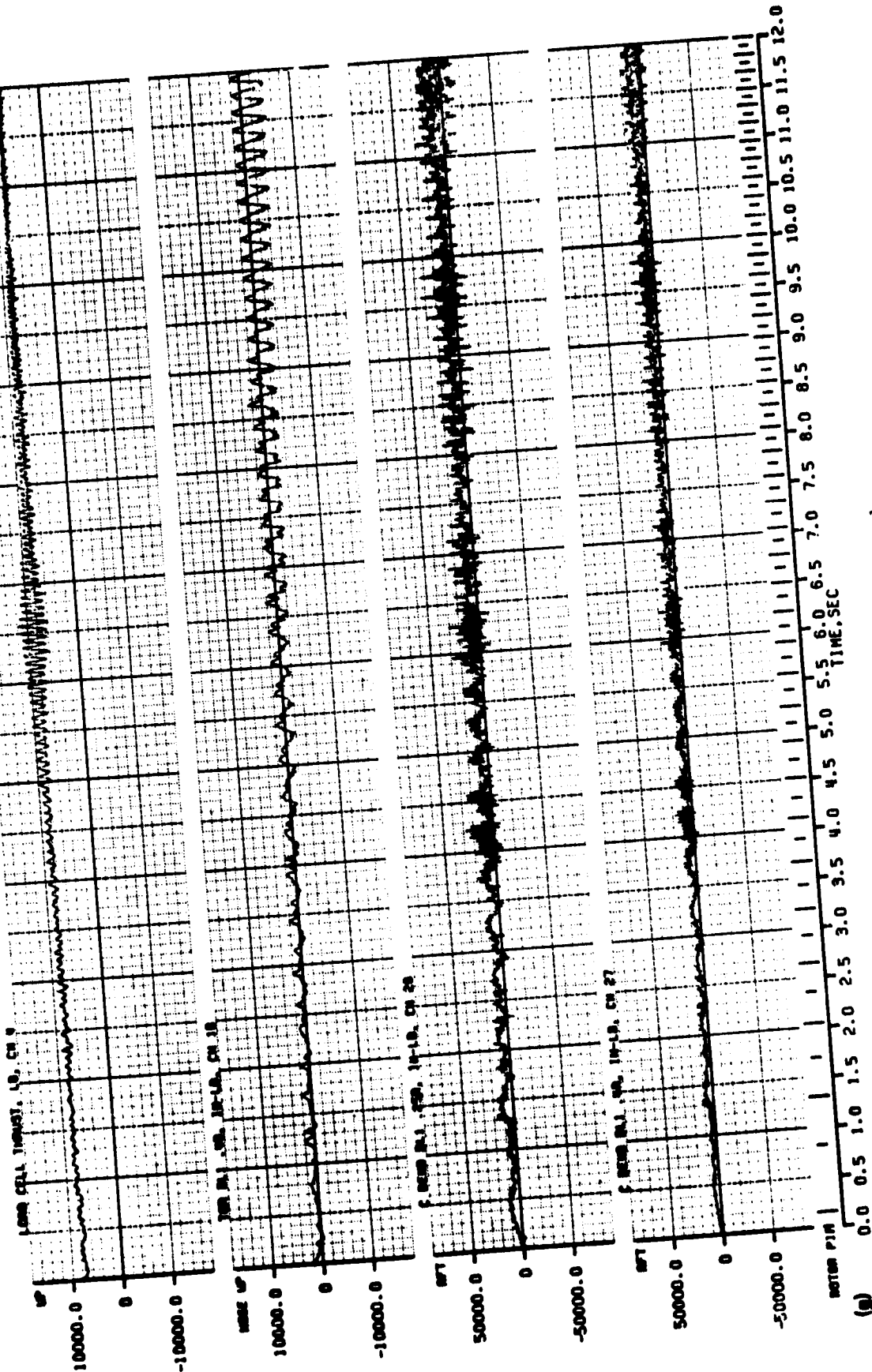


Figure 18.- Continued.

X-WING 40180 MT 180K CONV MODE START ALF=3 TH0=-5 PP=8.8 X2P

TEST 539 RUN 43 POINT 11

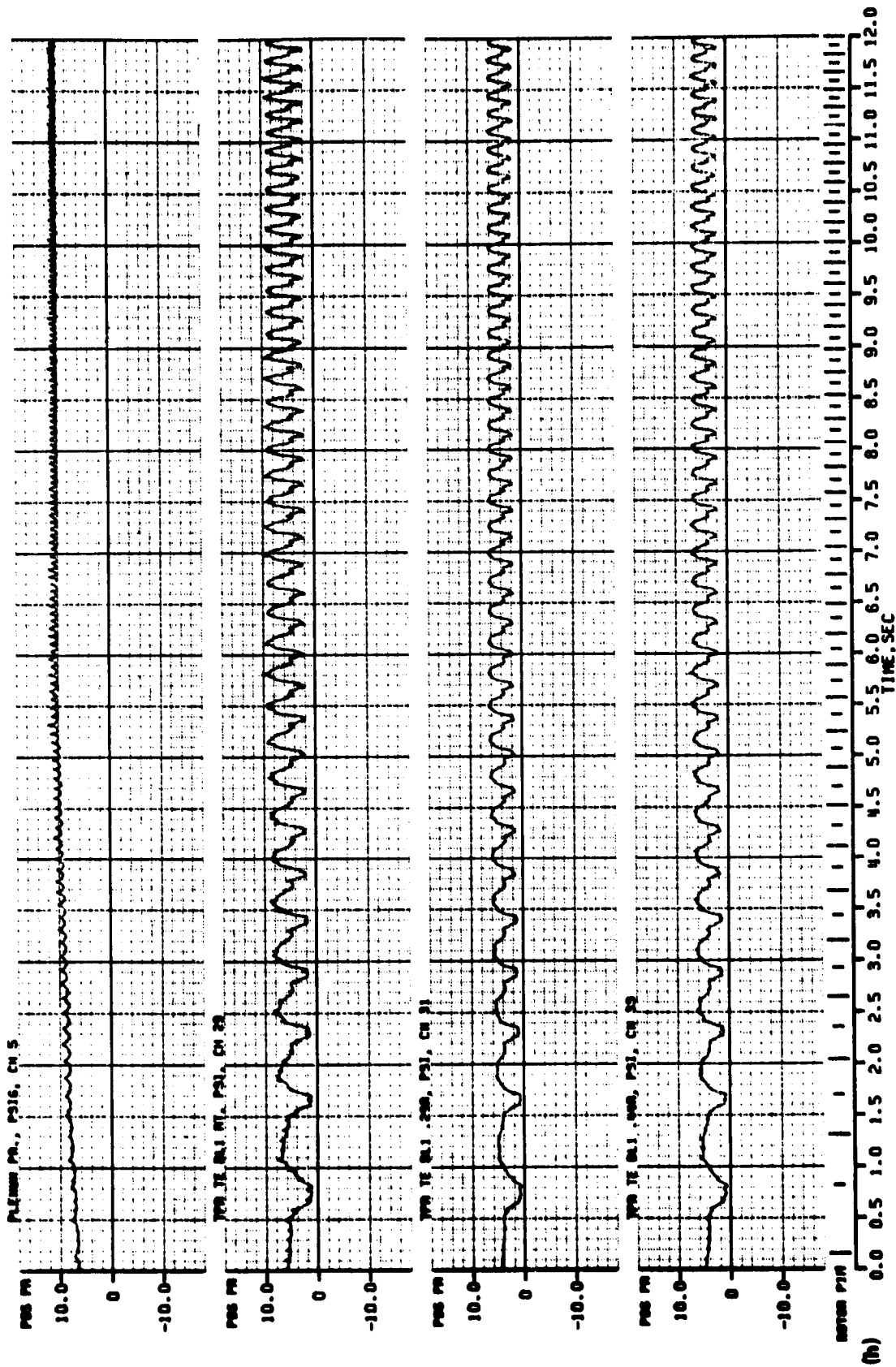
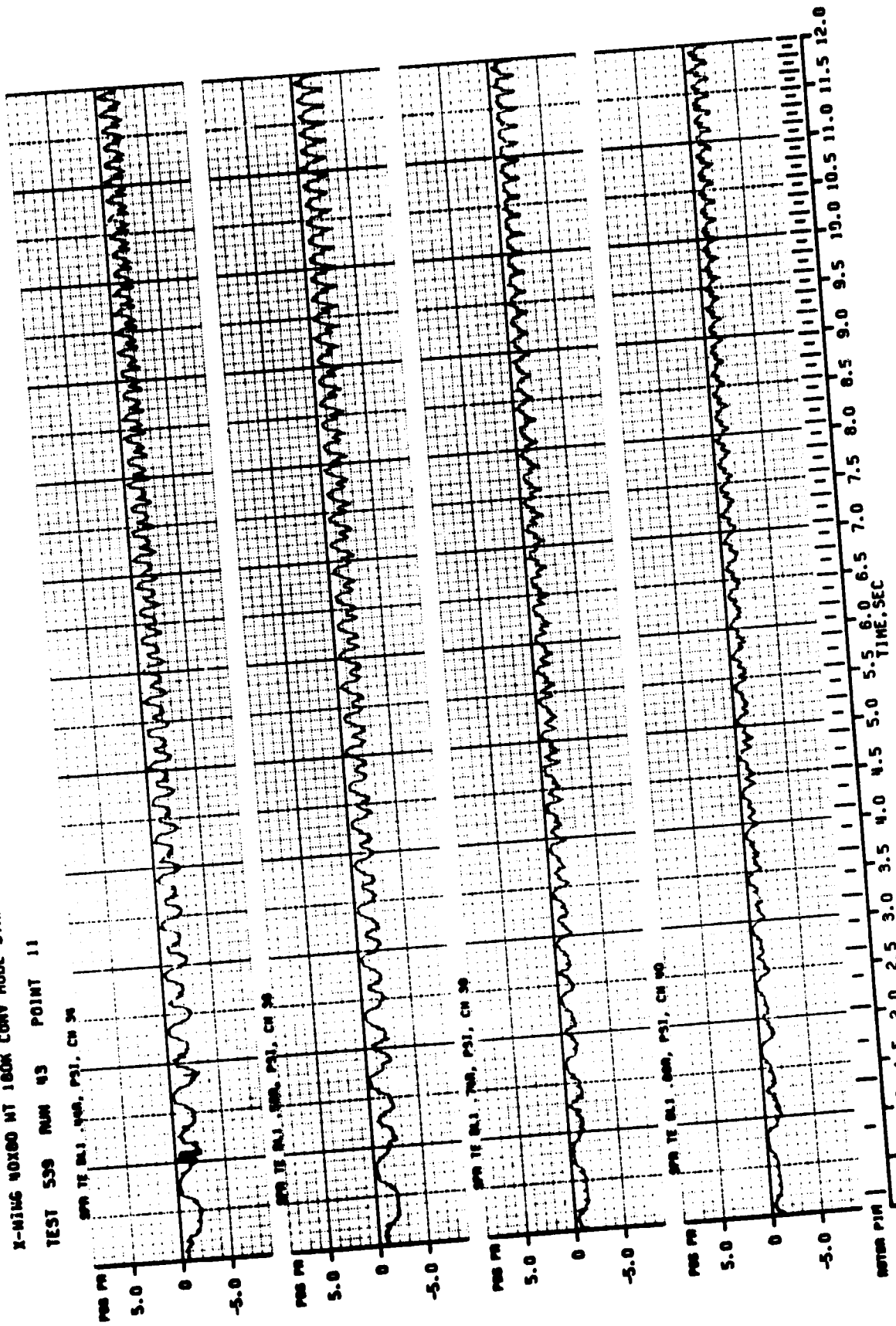


Figure 18.- Continued.

X-NING 40X60 NT 160K CONV MODE START ALF=3 TH0=-5 PP=8.8 X2P
 TEST 538 RUN 43 POINT 11



(i) Figure 18.- Continued.

X-MING 40X60 MT 180K CONV MODE START ALΓ-3 THD-5 PP-8.8 X2P

TEST 539 RUN 43 POINT 11

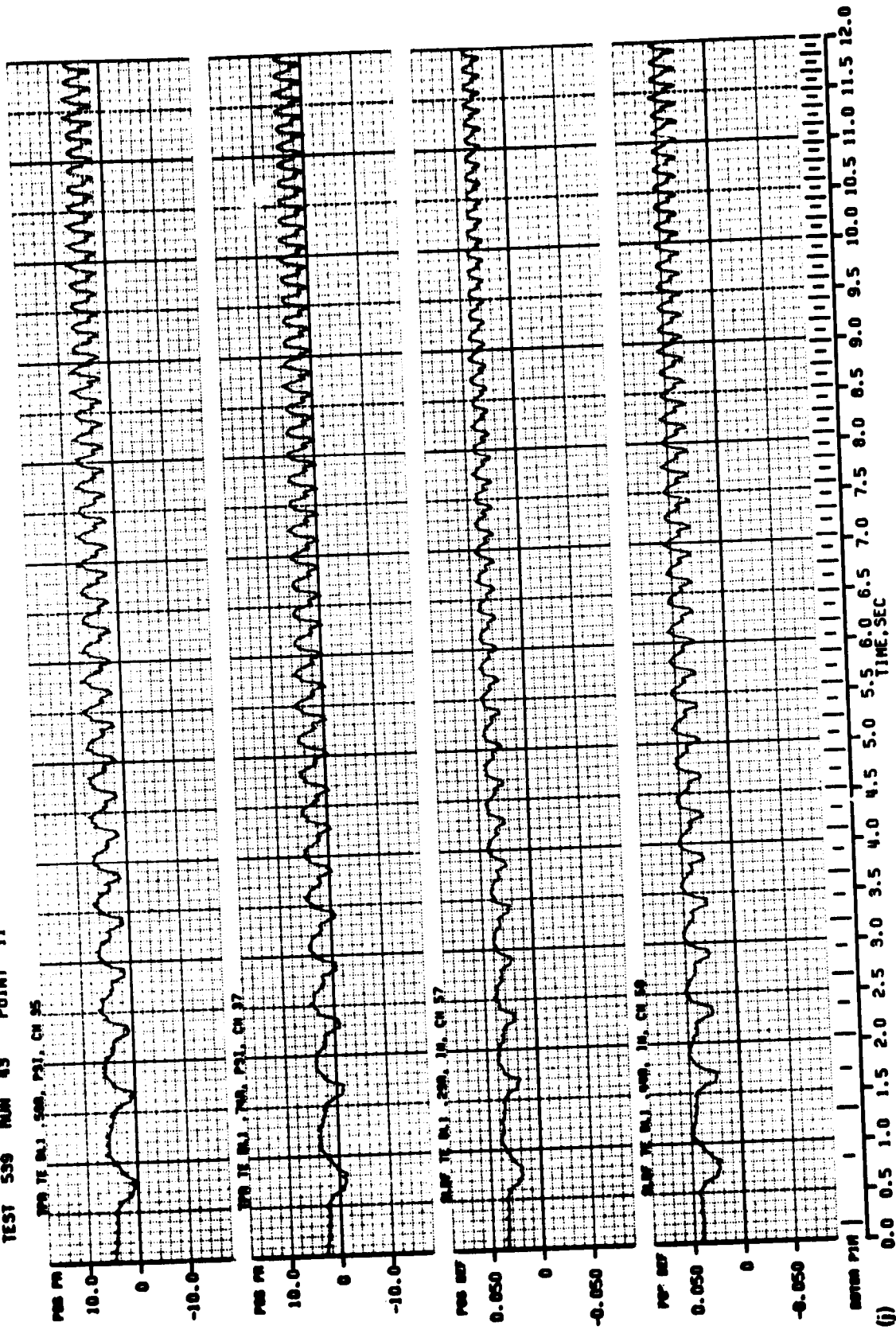


Figure 18.- Continued.

X-HIMS 60250 MT 180K CMV MODE START ALF=3 TH0=5 PP=8.6 X2P

TEST 530 RUN 05 POINT 11

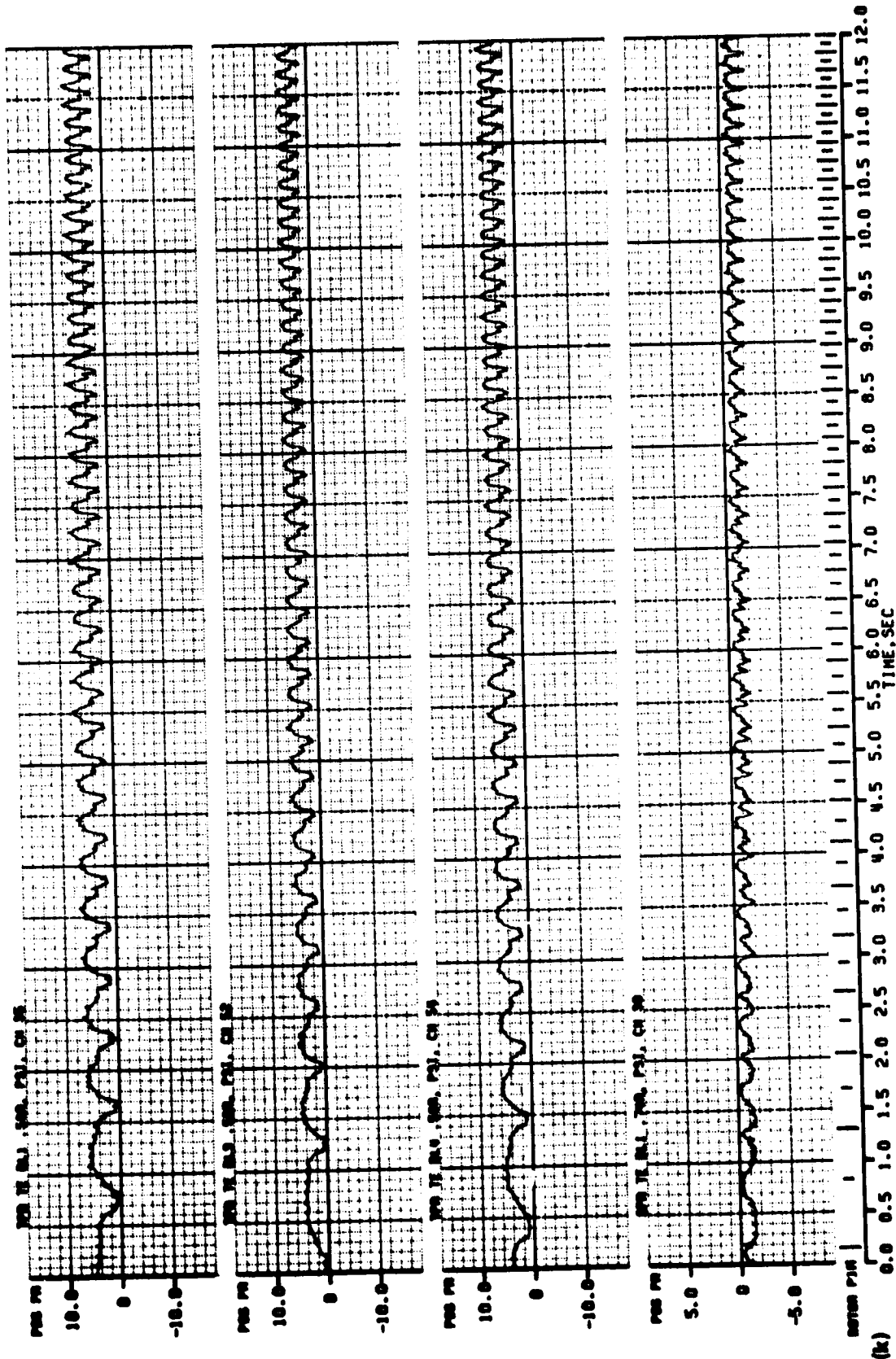


Figure 18.- Continued.

R-RING 40X60 WT 160K CONV MODE START ALF-3 TH0--5 PP-6.8 X2P

TEST 539 RUN 43 POINT 11

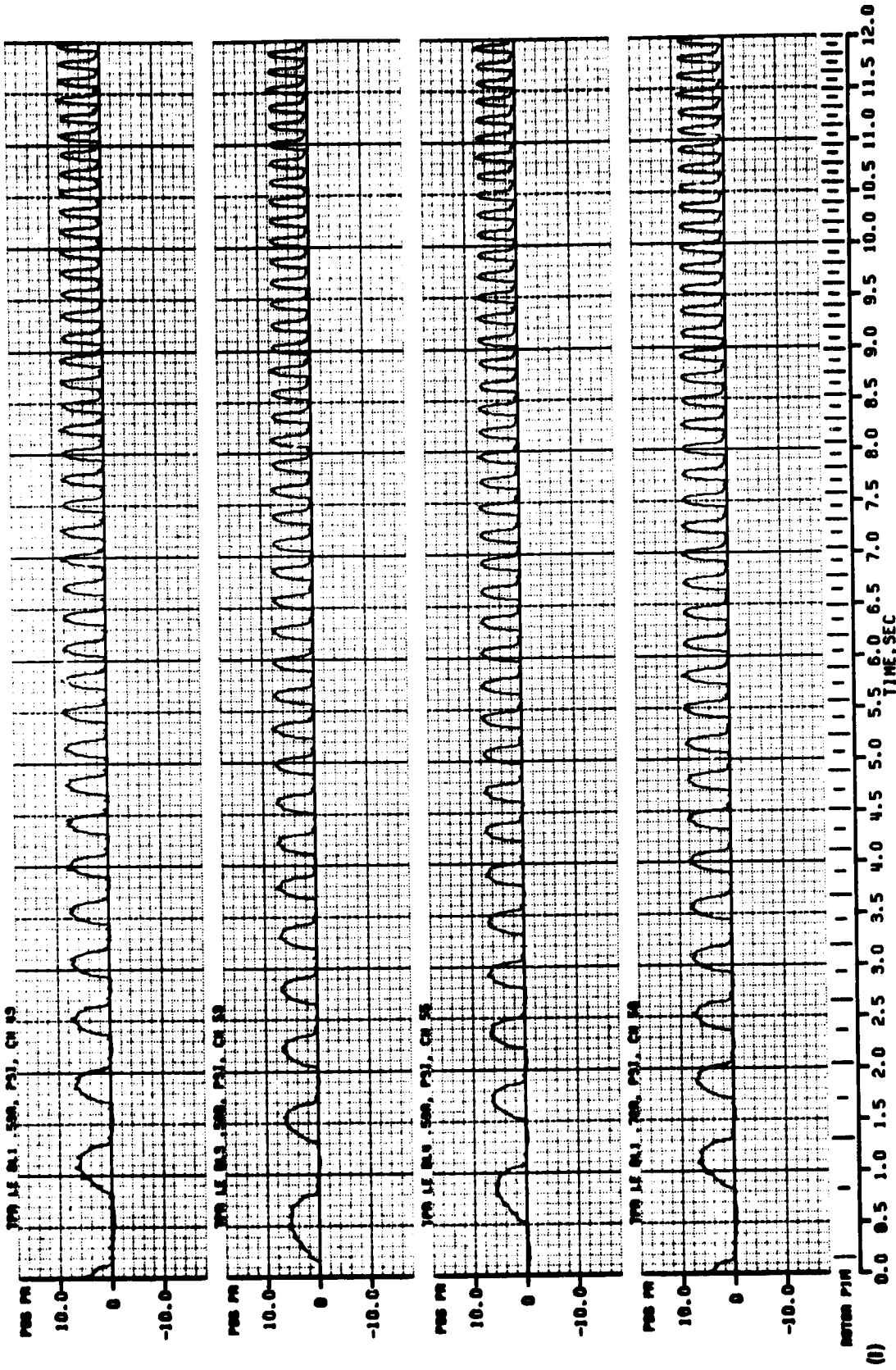


Figure 18.- Continued.

X-MING 40200 NT 100K CONV MODE START ALF-3 TH0-5 PP-8.8 X2P

TEST 530 RUN 43 POINT 11

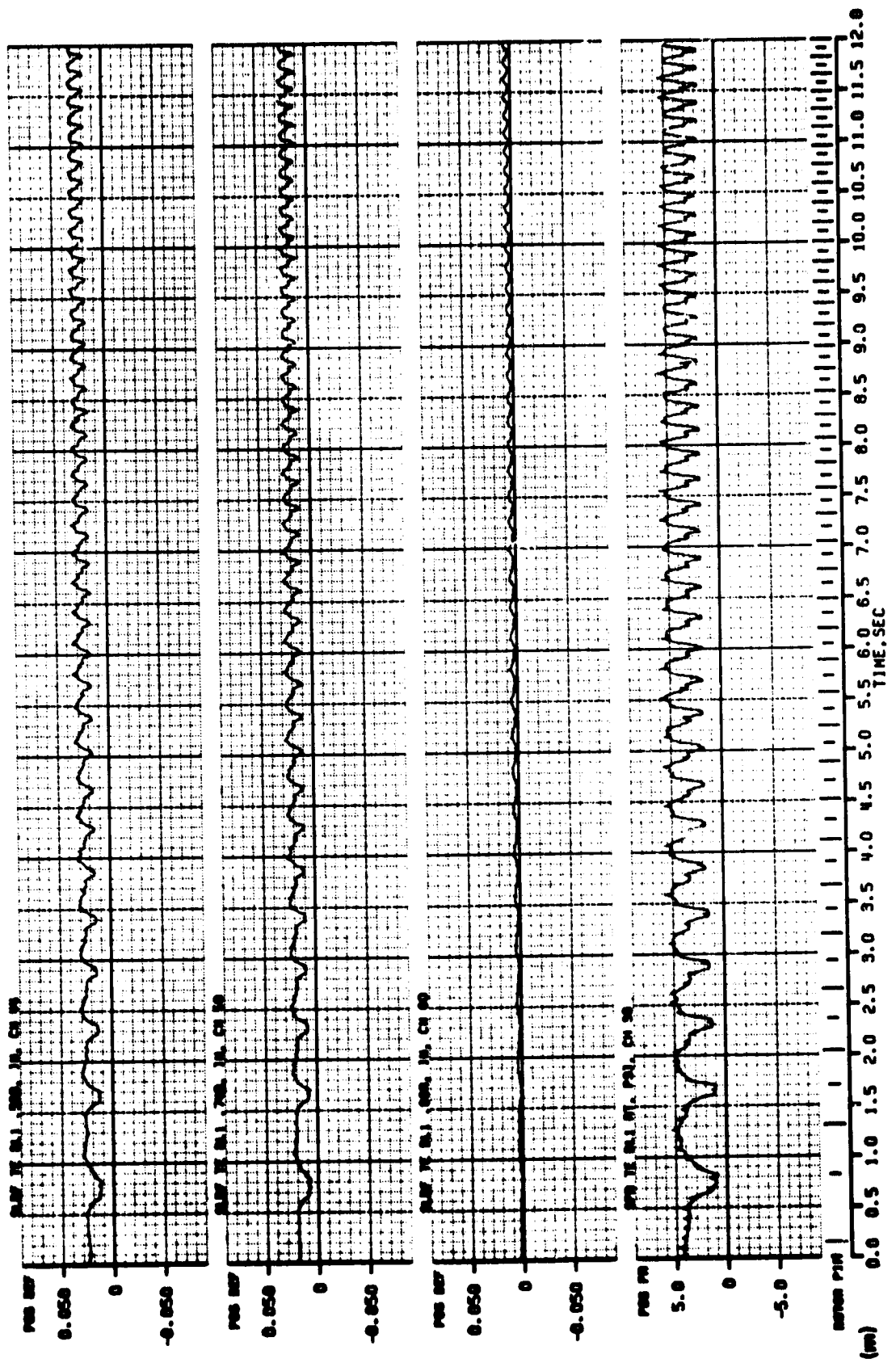


Figure 18.- Concluded.

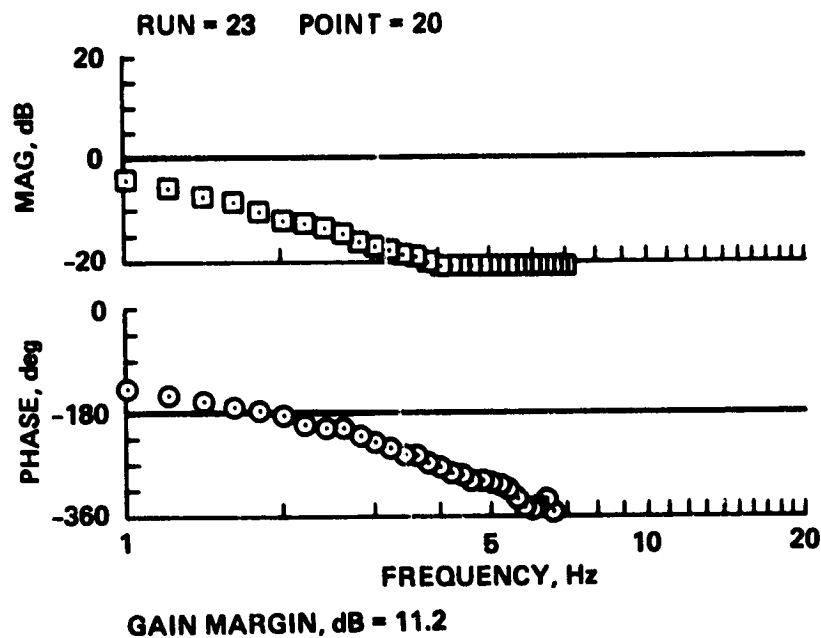


Figure 19.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Pitch loop stability measurement with roll loop open.

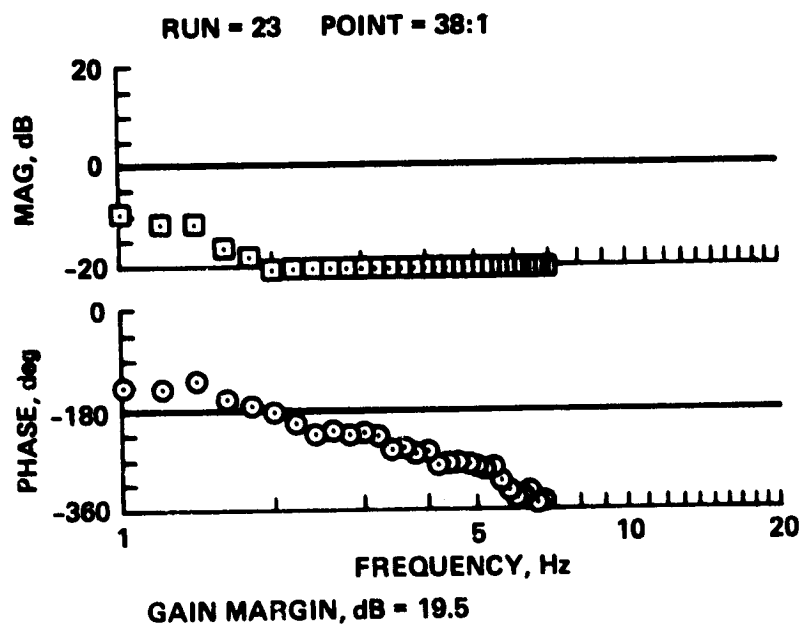


Figure 20.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Roll loop stability measurement with pitch loop open.

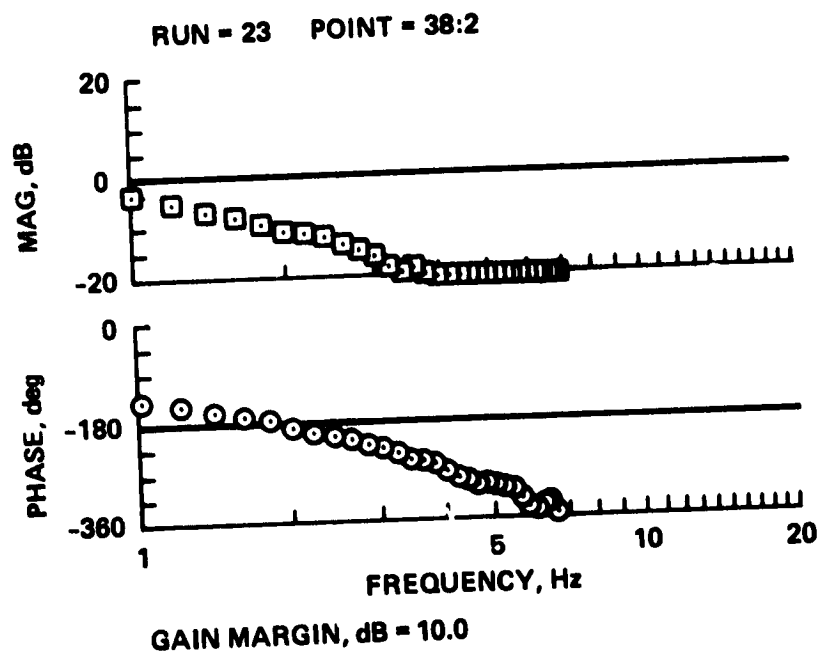


Figure 21.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Pitch loop stability measurement with roll loop open.

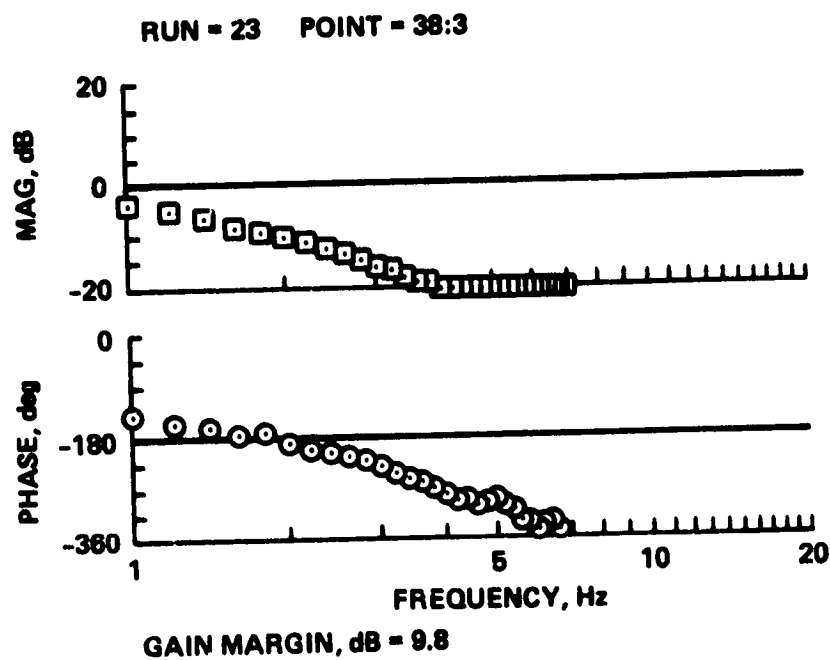


Figure 22.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Pitch loop stability measurement with roll loop closed.

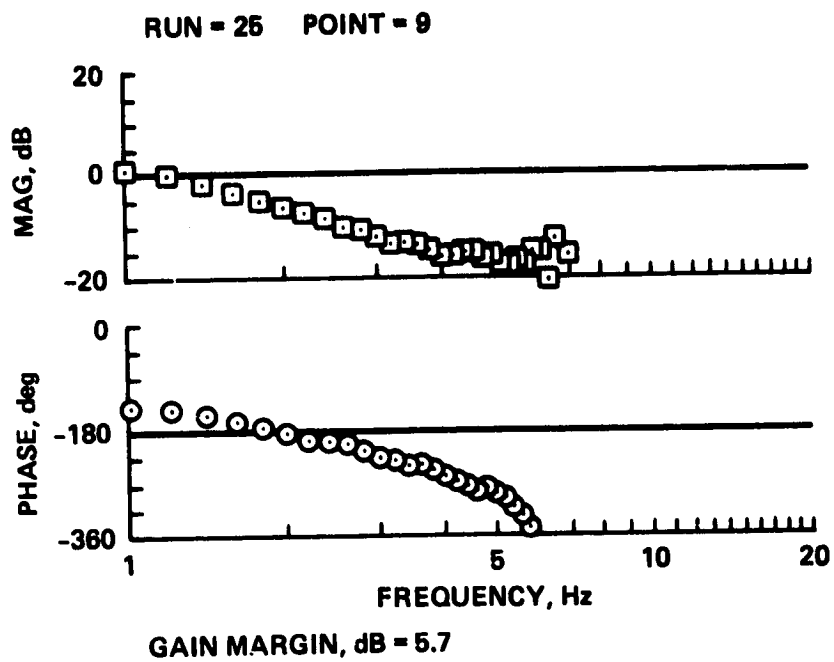


Figure 23.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.

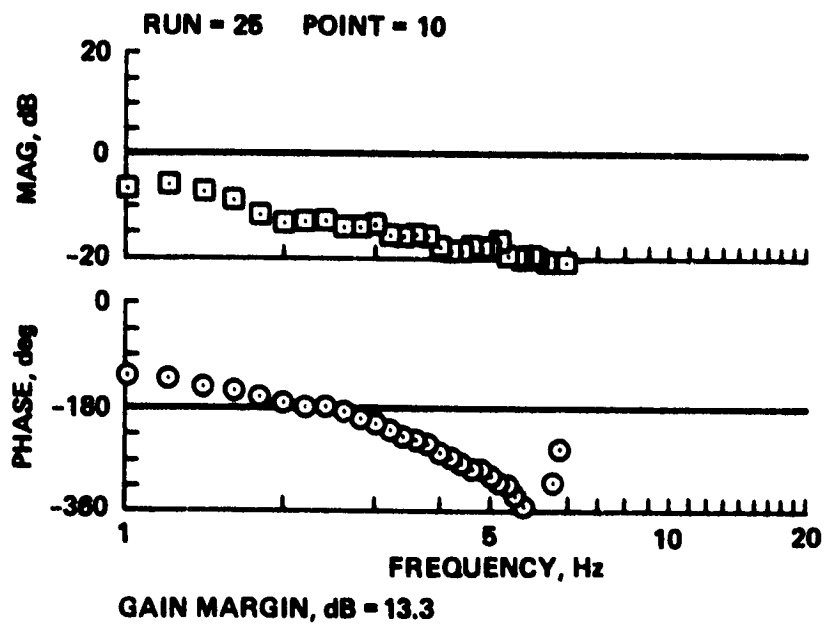


Figure 24.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

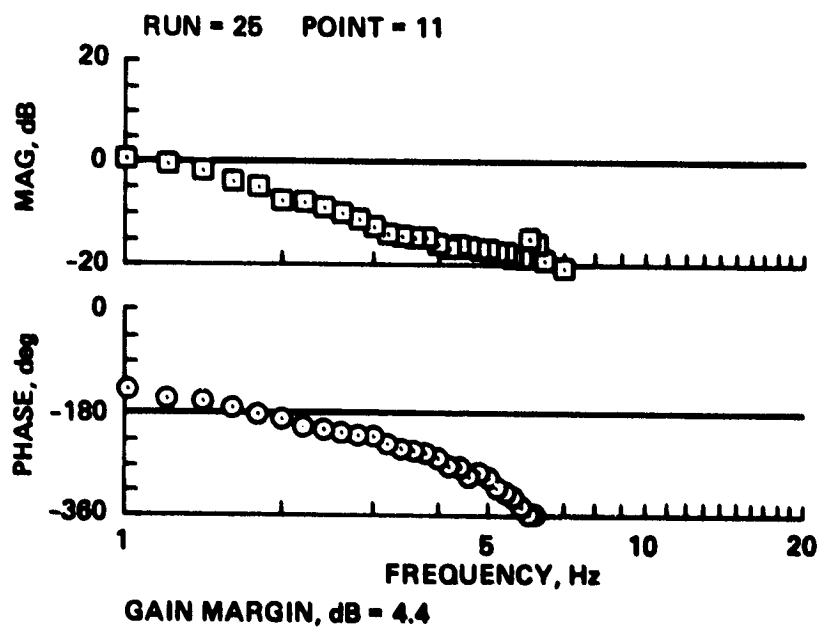


Figure 25.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop closed.

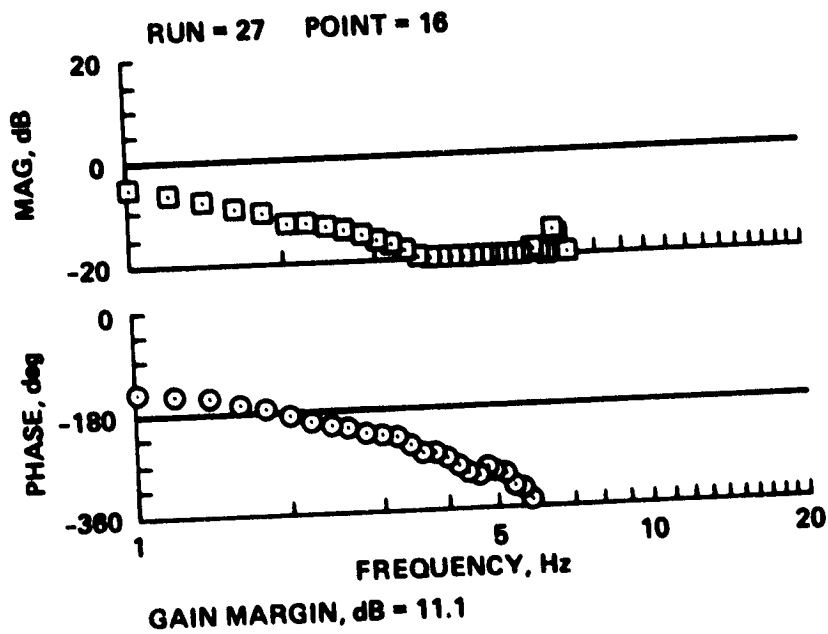


Figure 26.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.

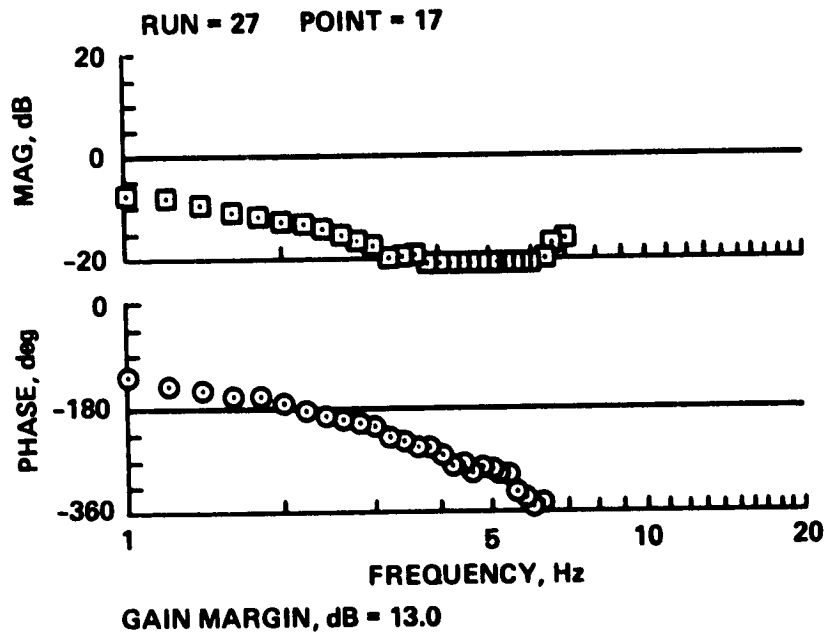


Figure 27.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

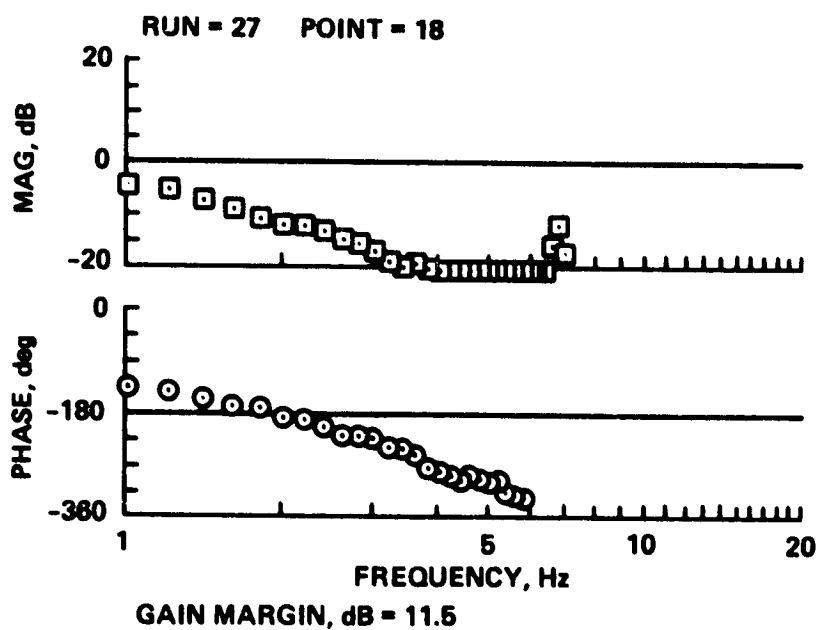


Figure 28.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with pitch loop closed.

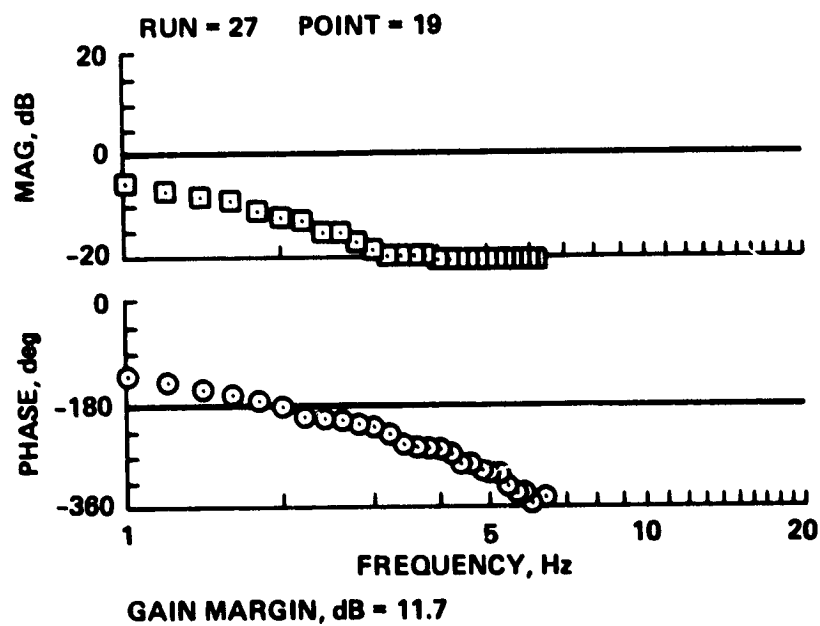


Figure 29.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop closed.

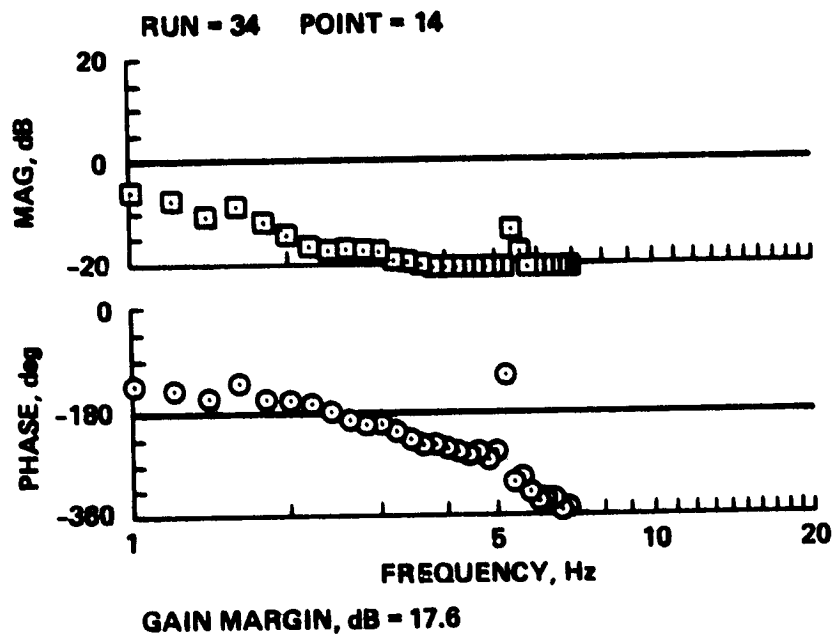


Figure 30.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

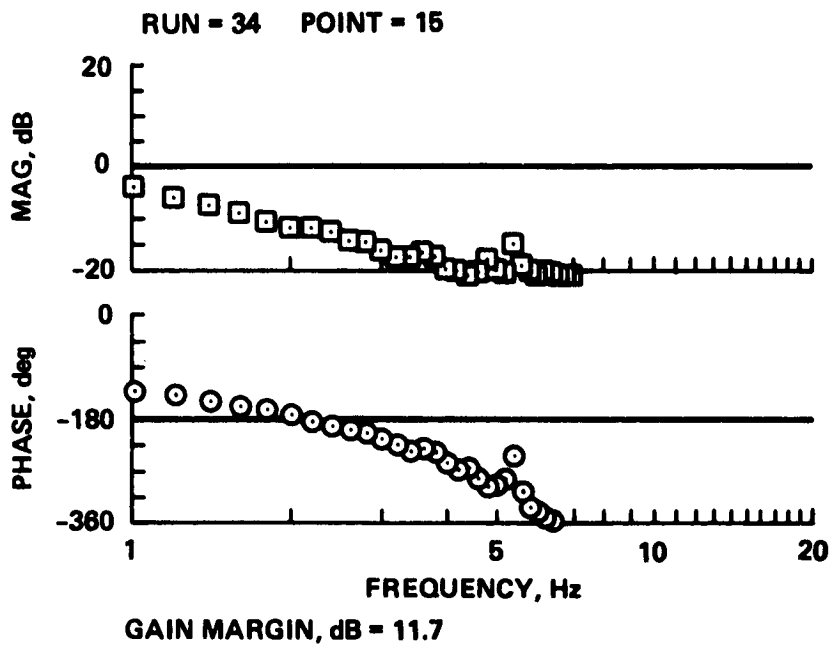


Figure 31.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.

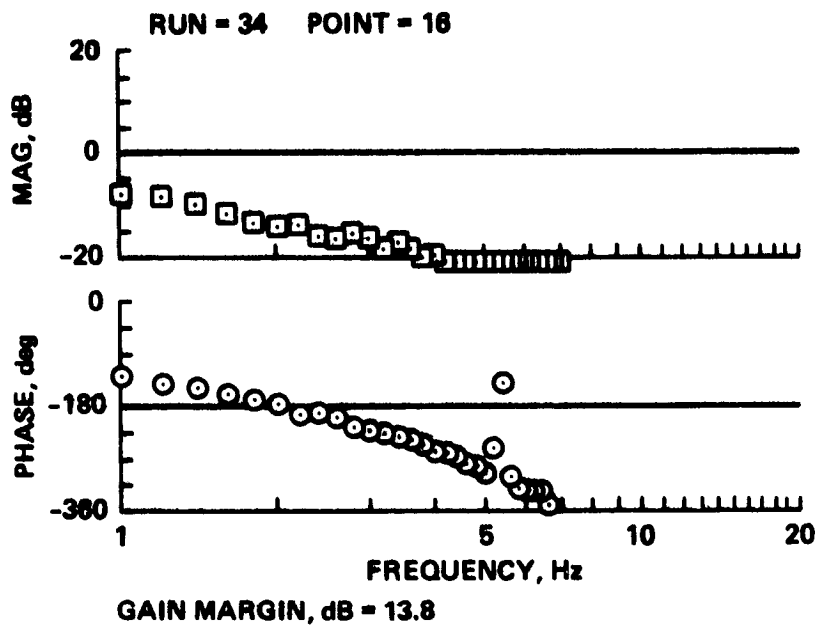


Figure 32.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop closed.

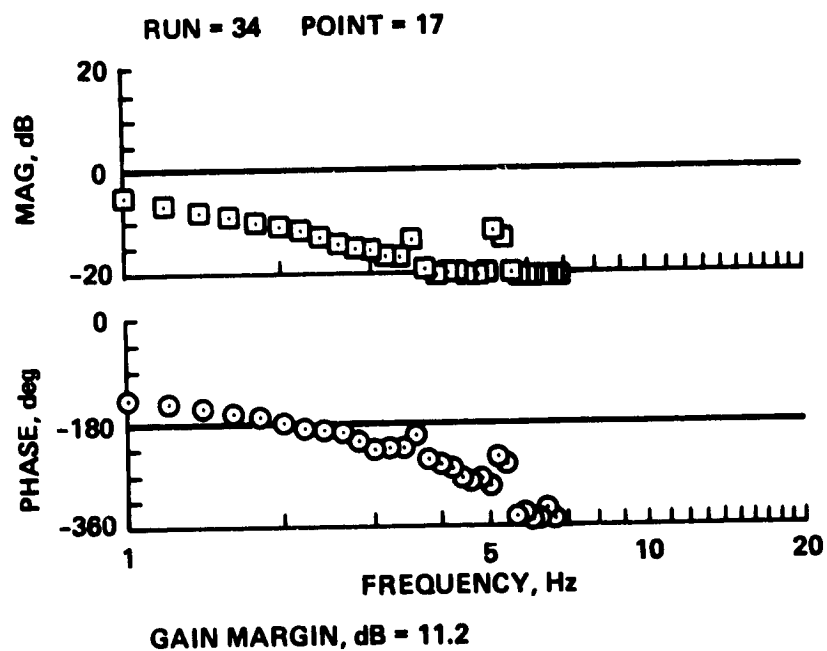


Figure 33.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop closed.

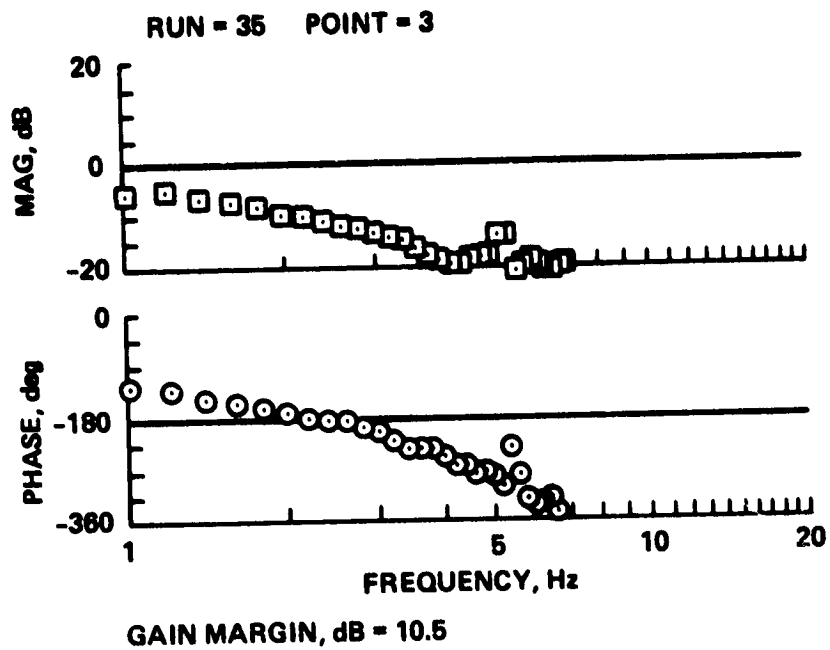


Figure 34.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

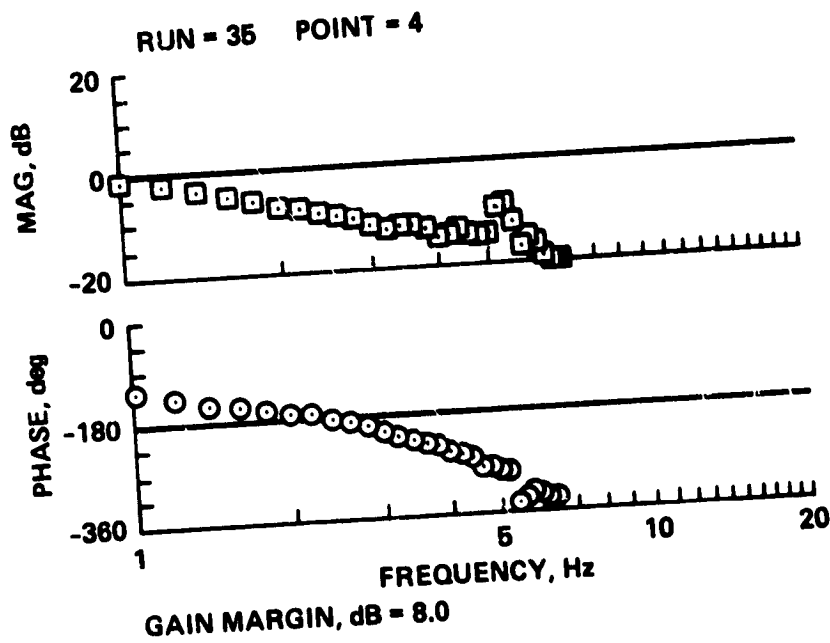


Figure 35.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.

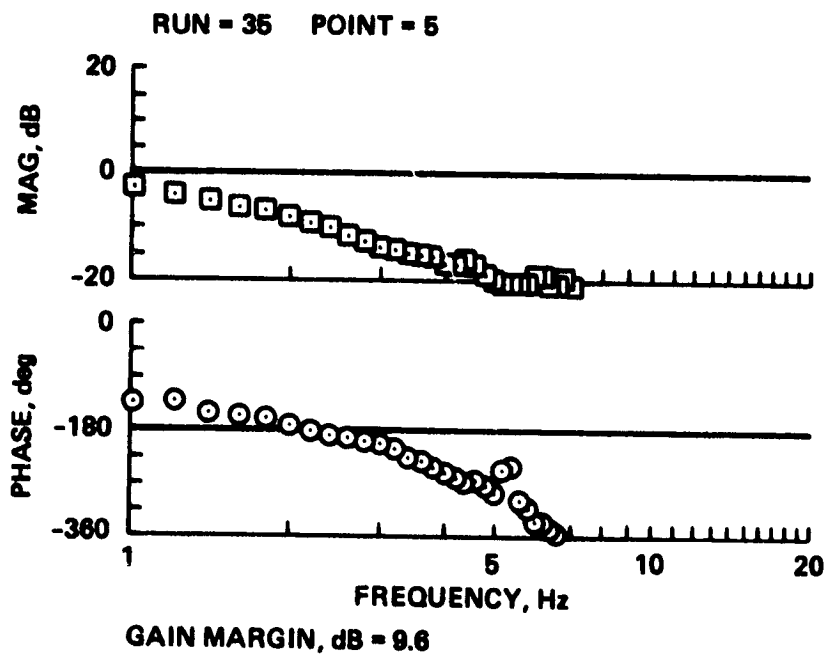


Figure 36.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop closed.

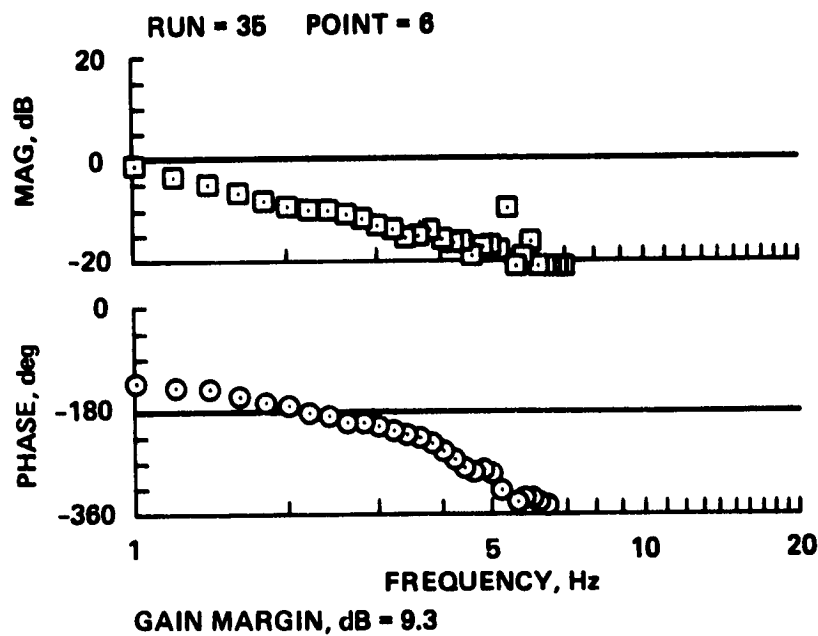


Figure 37.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop closed.

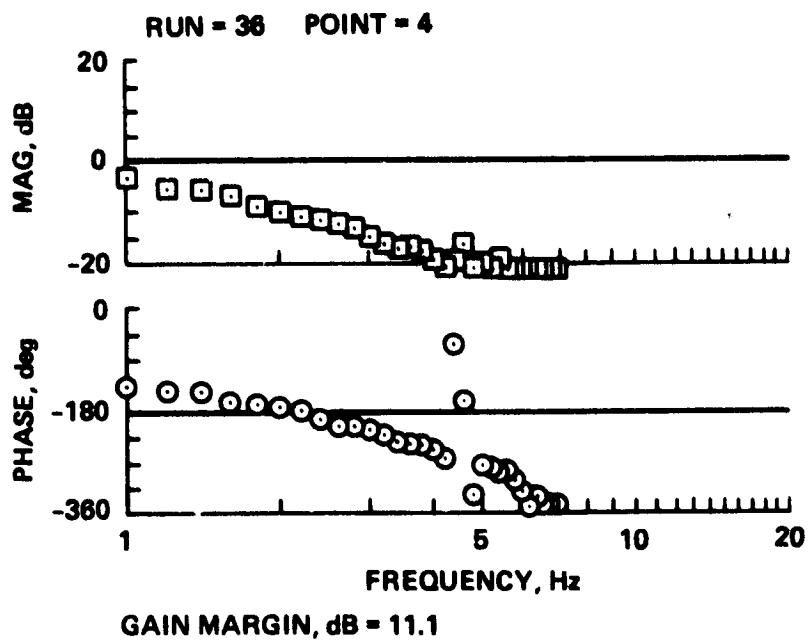


Figure 38.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

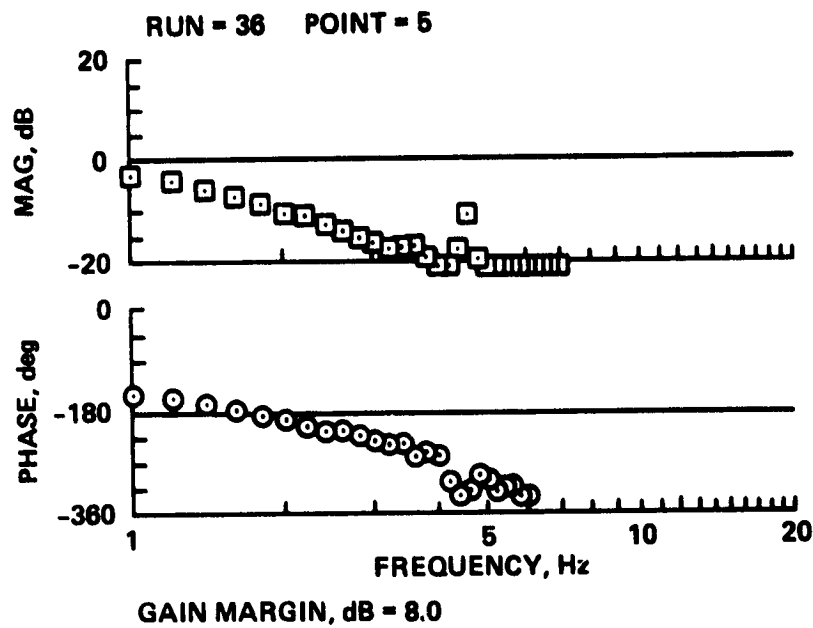


Figure 39.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop closed.

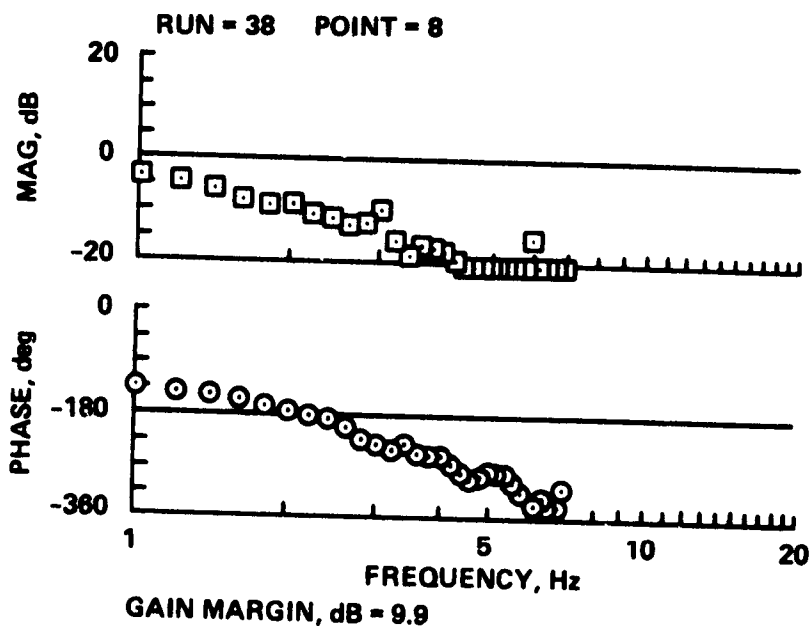


Figure 40.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

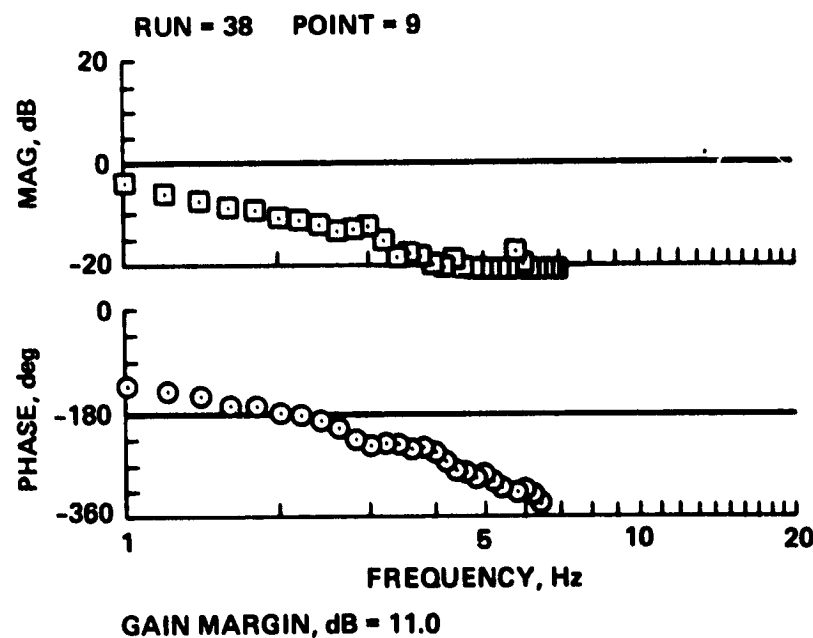


Figure 41.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.

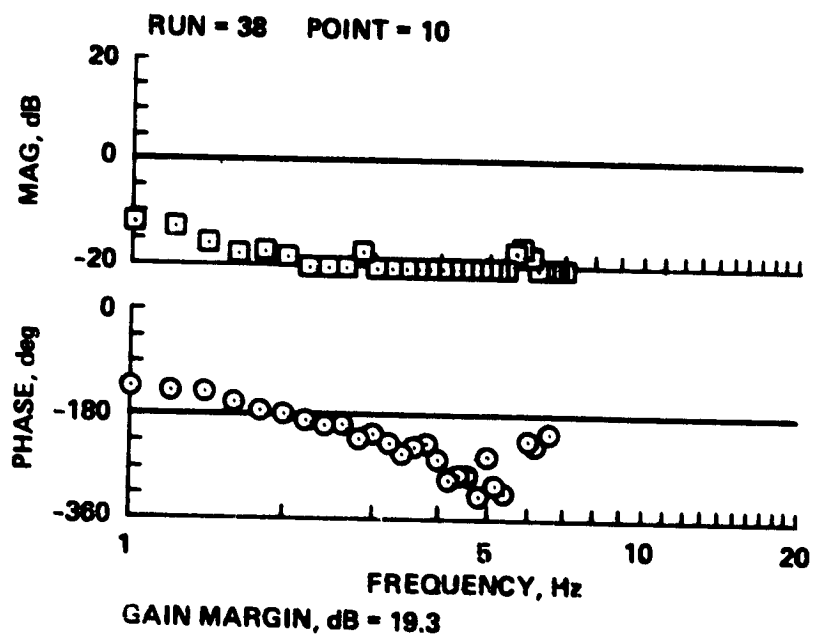


Figure 42.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with pitch loop open.

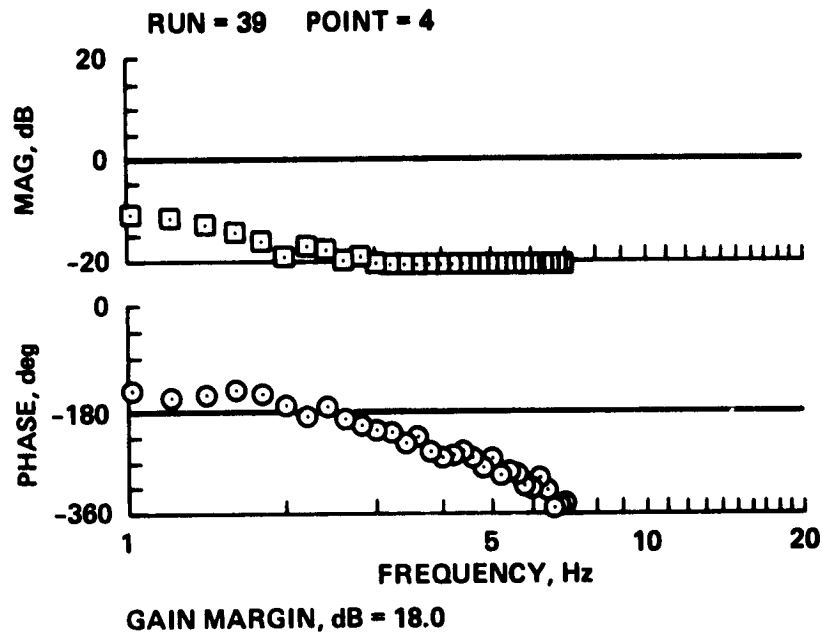


Figure 43.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Roll loop stability measurement with pitch loop open.

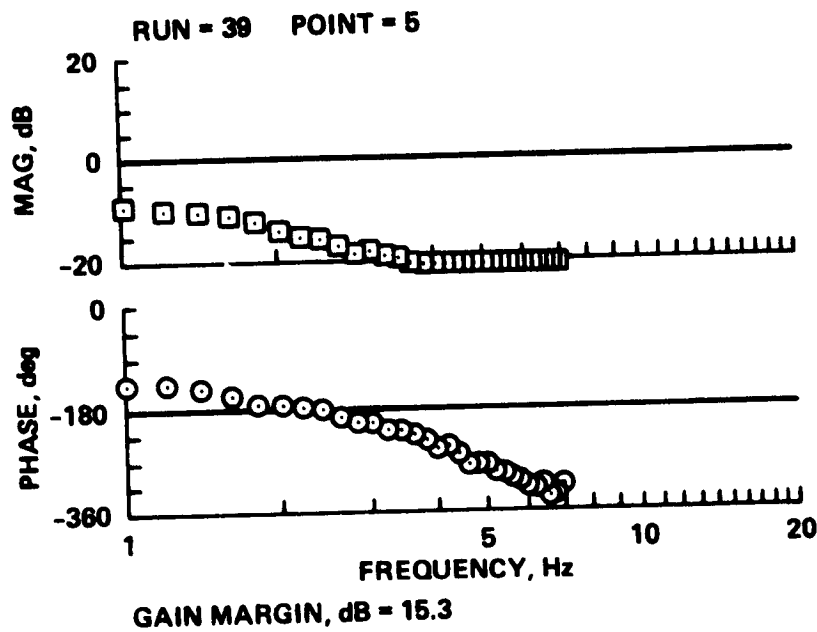


Figure 44.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Roll loop stability measurement with roll loop open.

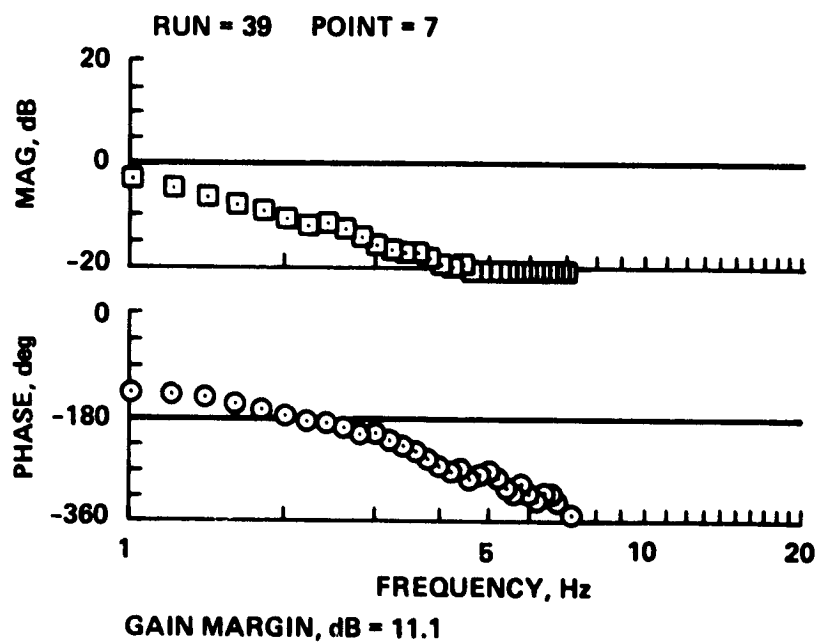


Figure 45.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Pitch loop stability measurement with roll loop open.

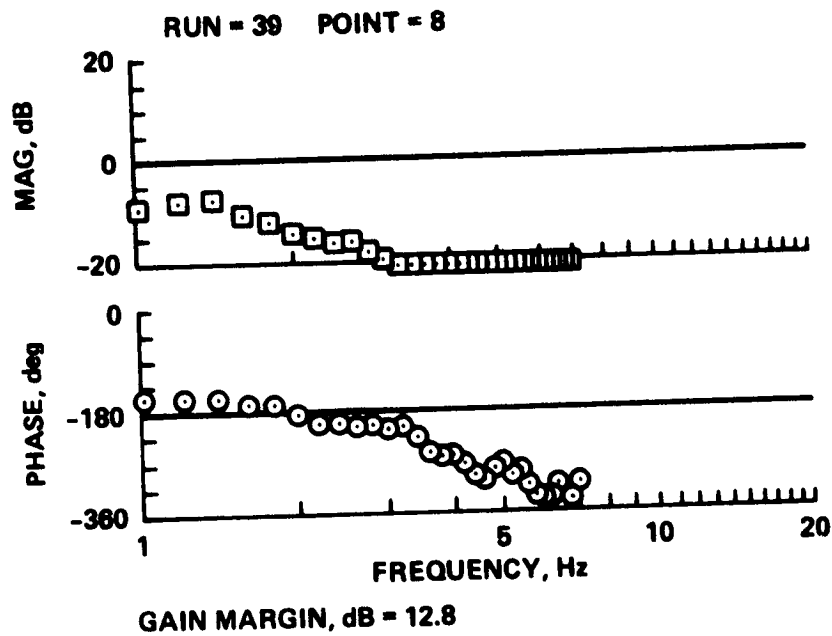


Figure 46.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Roll loop stability measurement with pitch loop open.

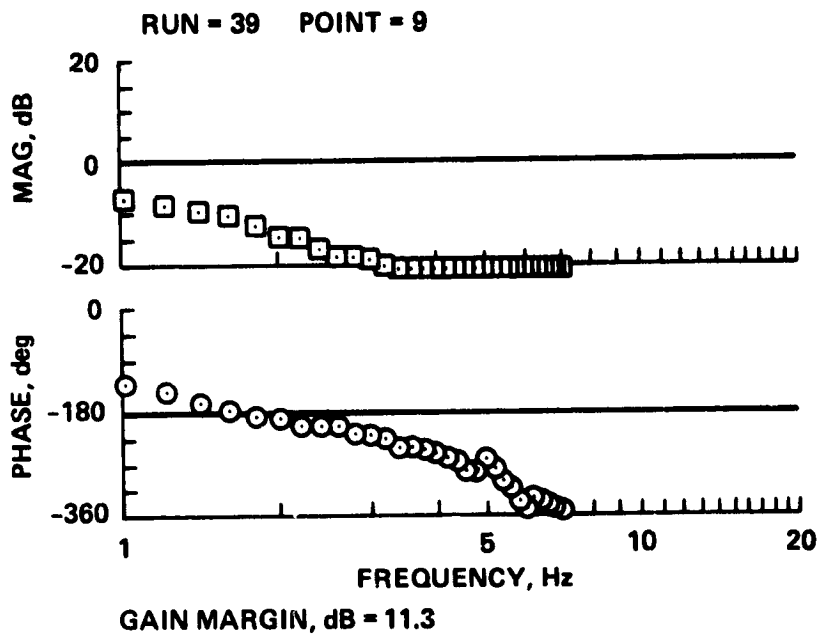


Figure 47.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Roll loop stability measurement with pitch loop closed.

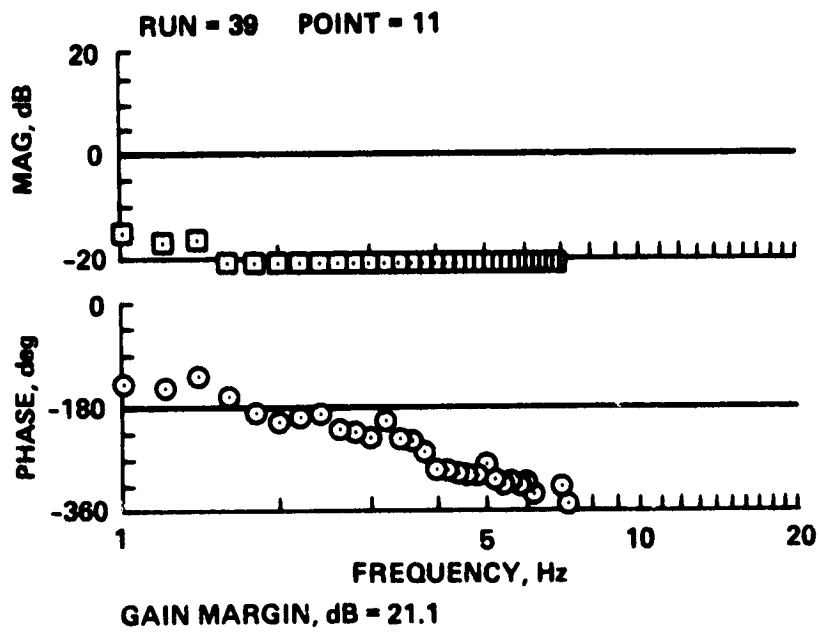


Figure 48.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Pitch loop stability measurement with roll loop open.

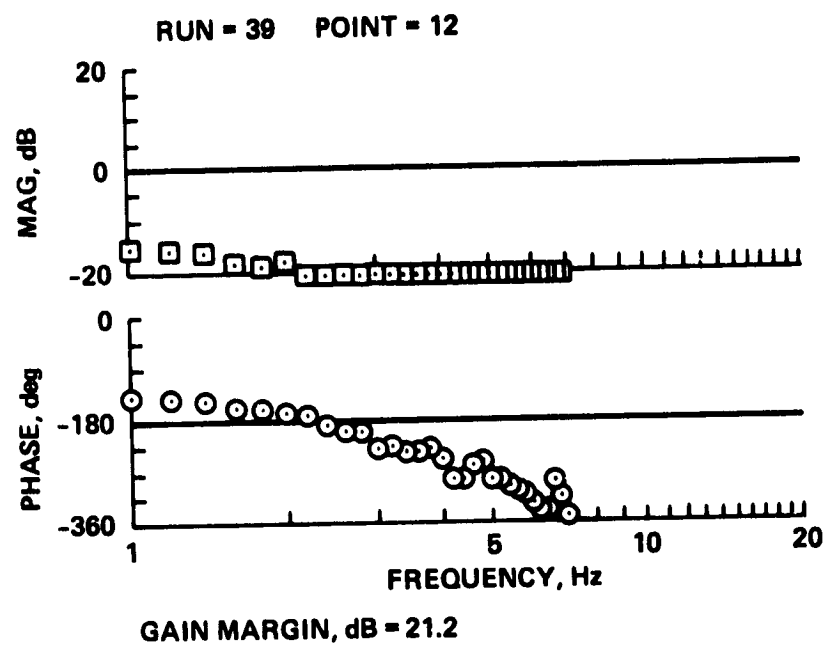


Figure 49.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Roll loop stability measurement with pitch loop open.

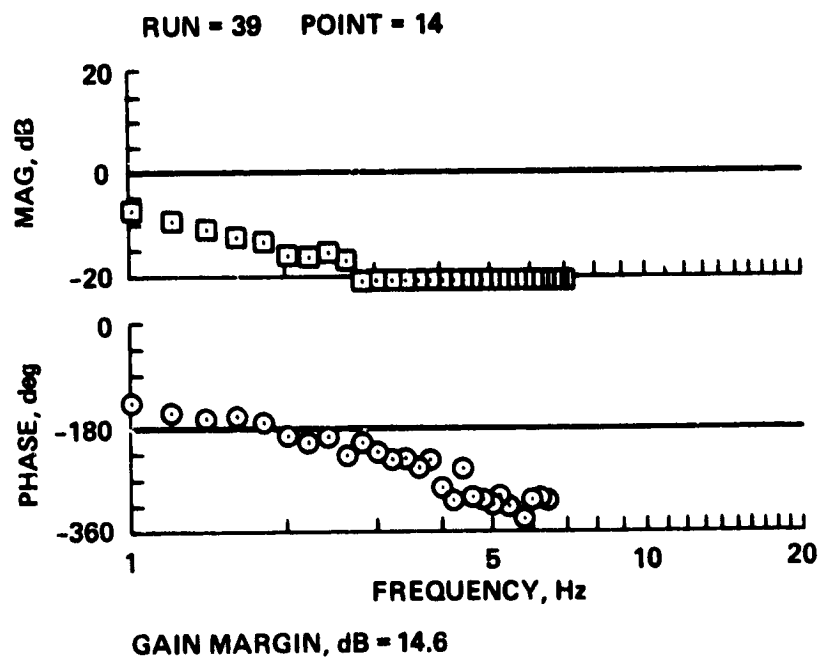


Figure 50.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Pitch loop stability measurement with roll loop open.

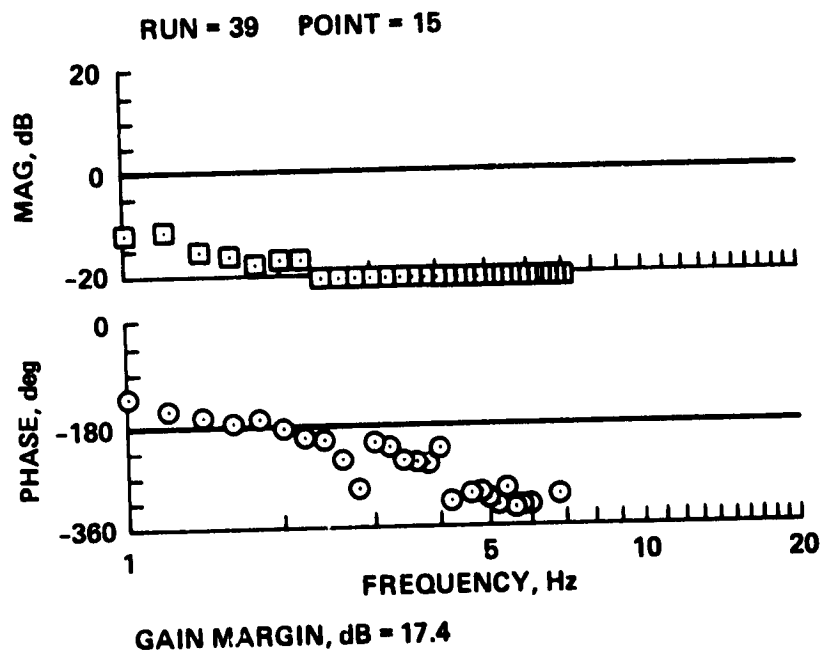


Figure 51.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Roll loop stability measurement with pitch loop open.

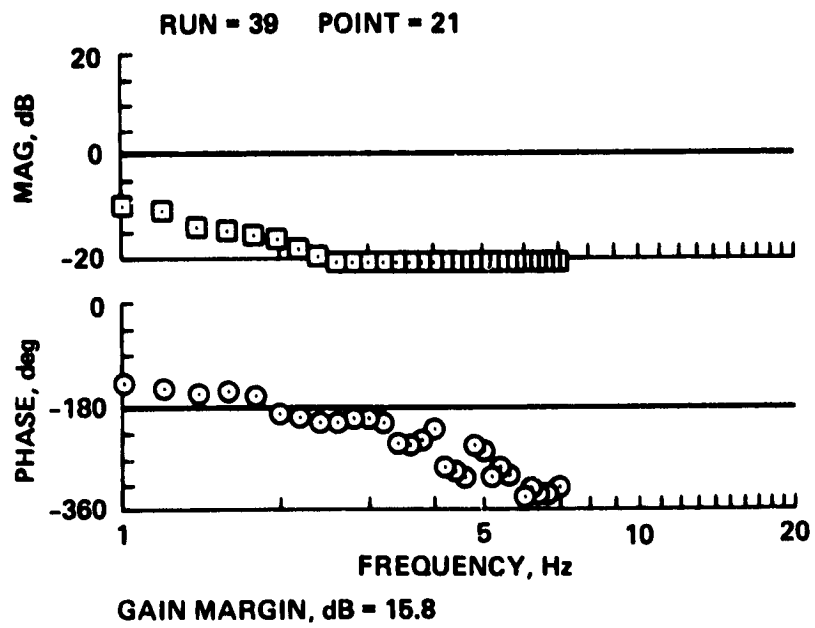


Figure 52.- Bode plot of measured hub-moment feedback control stability; fixed-wing mode. Roll loop stability measurement with pitch loop open.

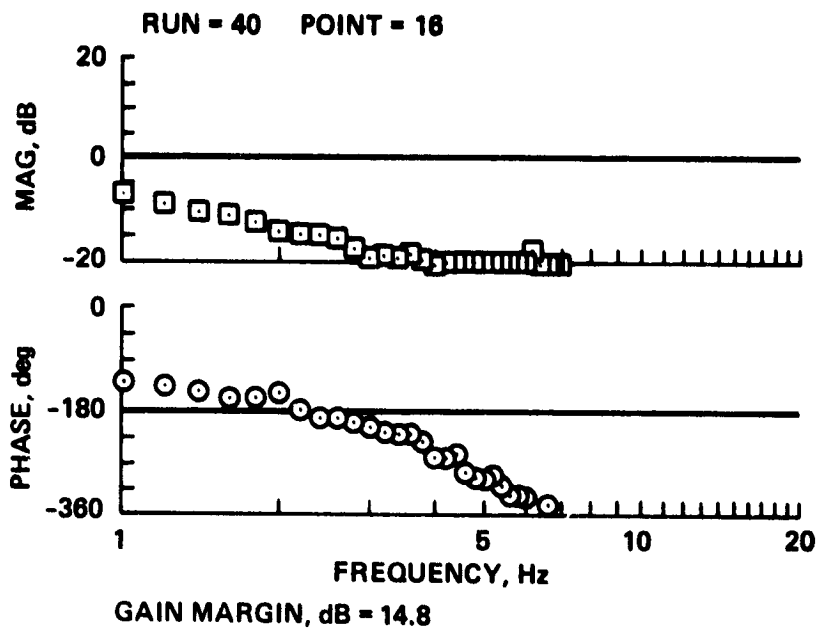


Figure 53.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.

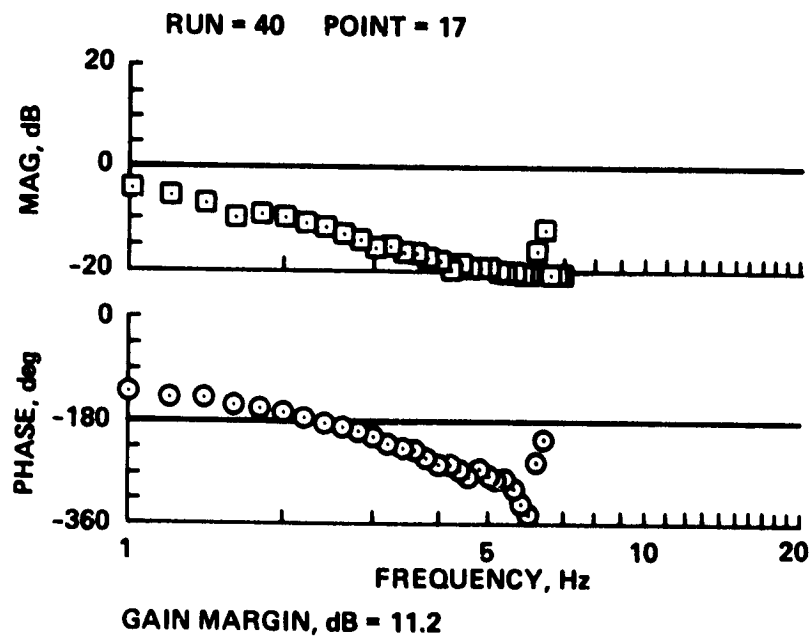


Figure 54.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

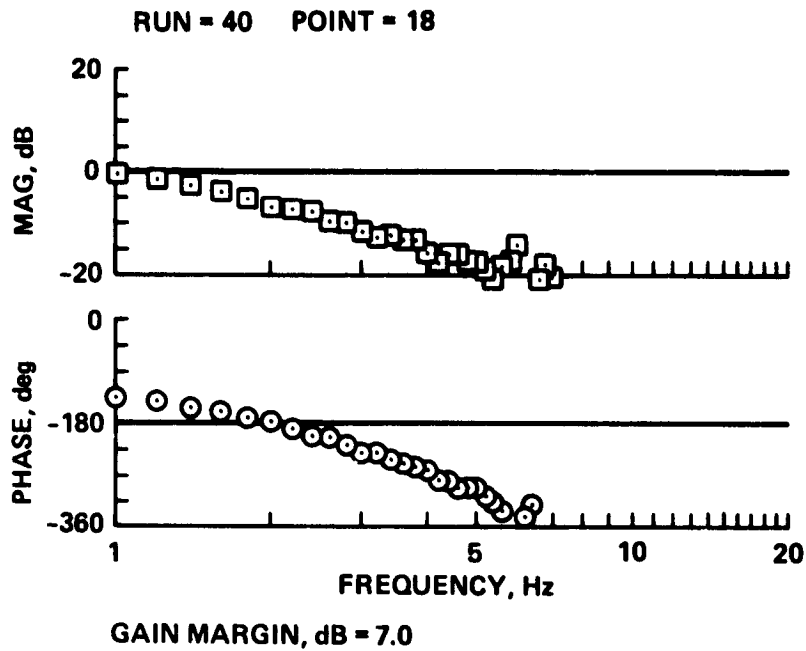


Figure 55.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.

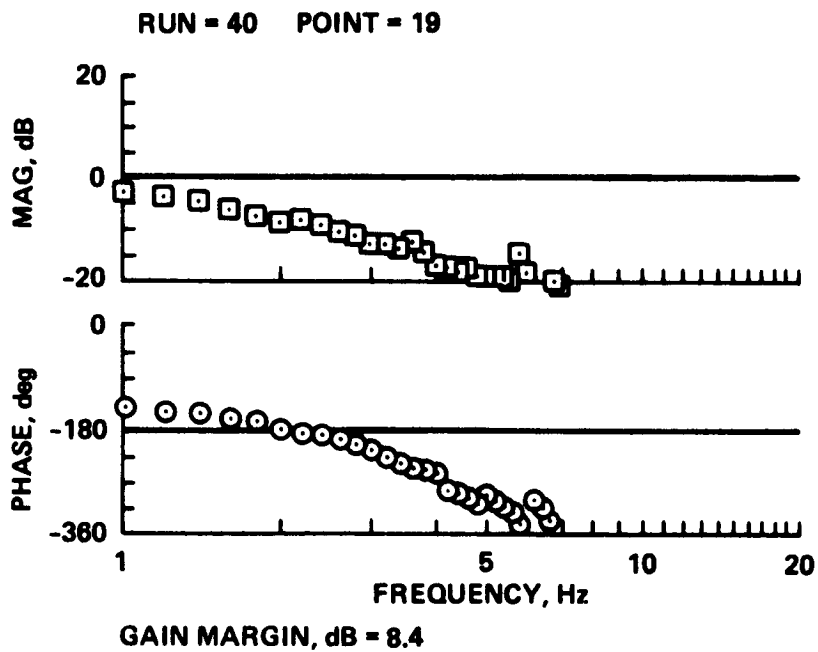


Figure 56.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop closed.

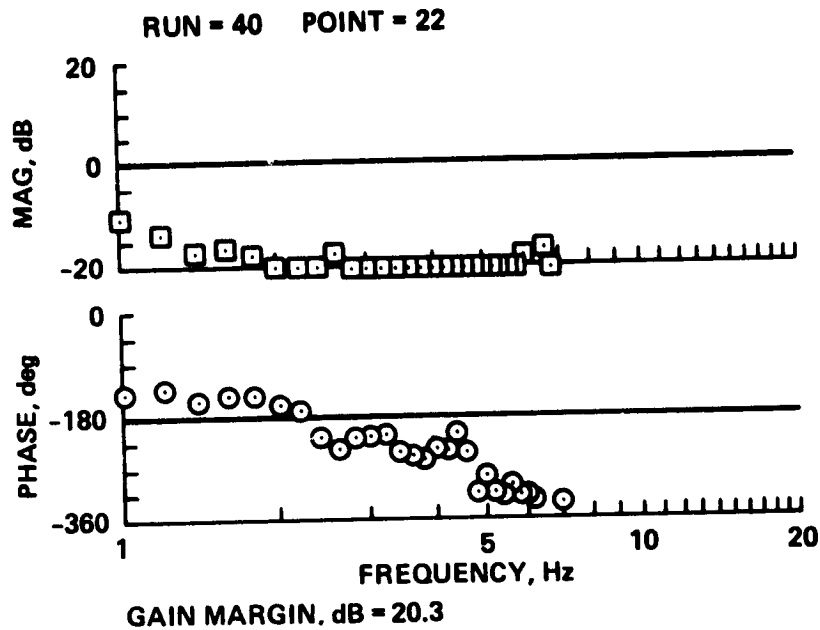


Figure 57.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

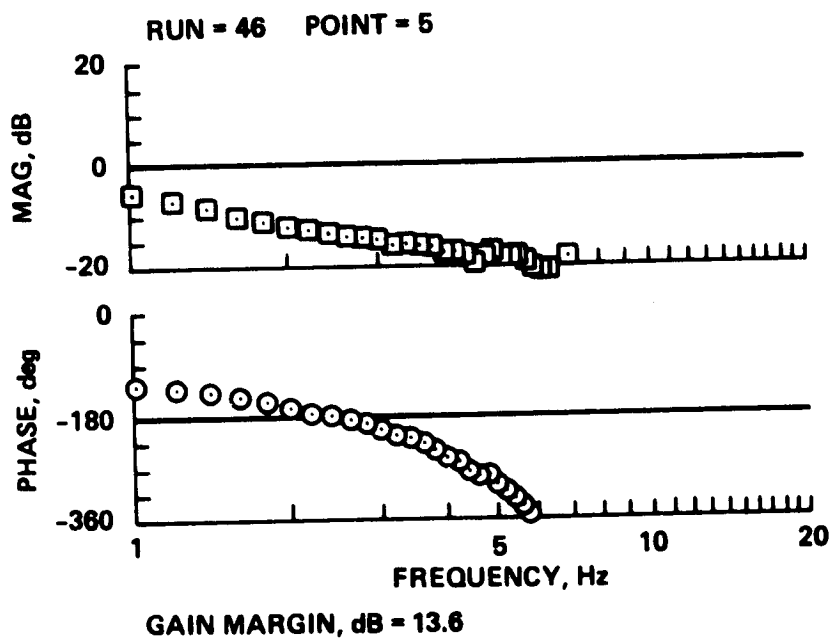


Figure 58.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Roll loop stability measurement with pitch loop open.

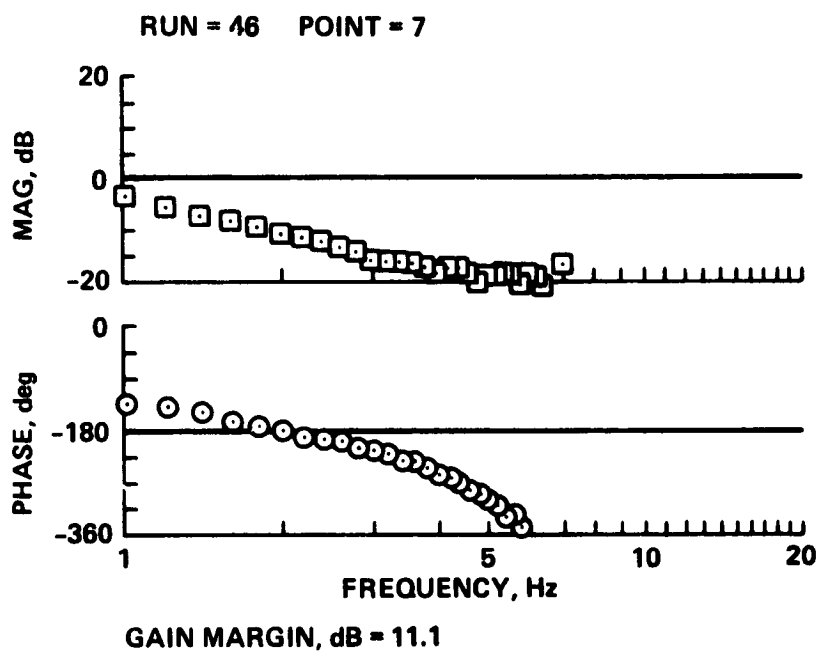


Figure 59.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.

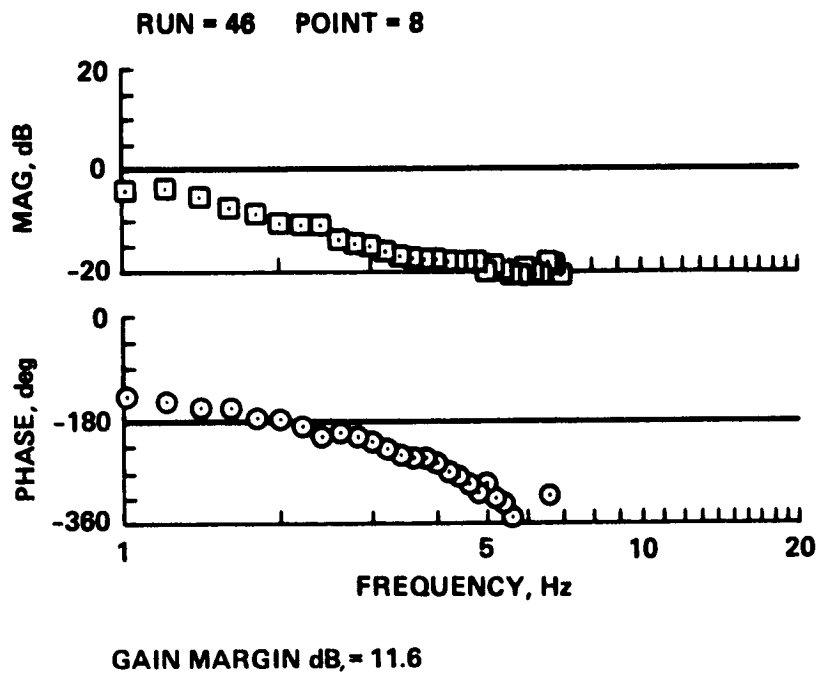


Figure 60.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop closed.

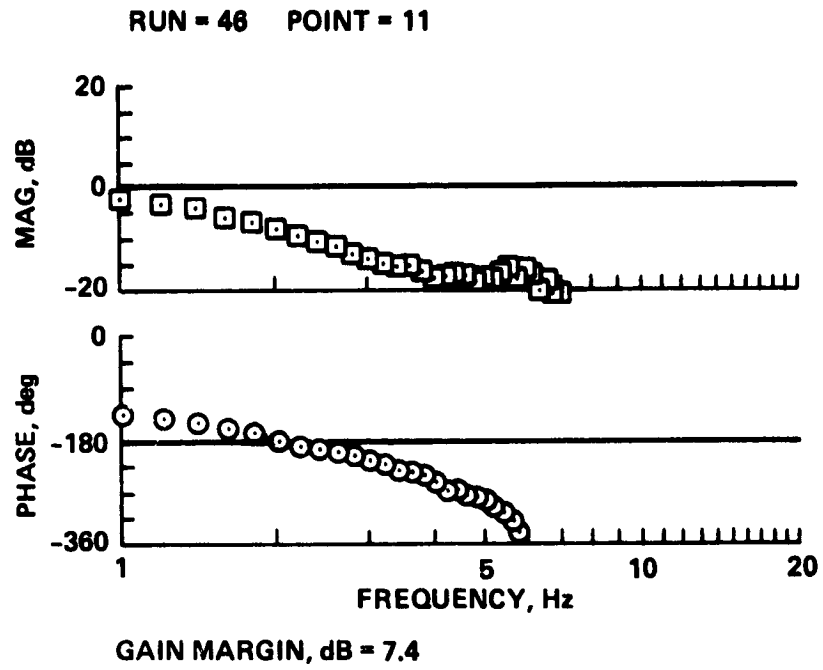


Figure 61.- Bode plot of measured hub-moment feedback control stability; rotary-wing mode. Pitch loop stability measurement with roll loop open.