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STATIC RADAR CROSS SECTION OF LIGHT AIRCRAFT. VOLUME II. CHEROKEE 140 AT L-, S-, AND C-BANDS

Test Group (6585th)

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16. Abstract

Static radar cross section (RCS) of a single-engine low-wing Piper PA-28-140 Cherokee (Cherokee 140) was measured at 2700, 2800, and 2900 MHz (S-Band) over a range of aircraft attitudes of ±10° pitch, 0° to 45° roll, and also at 1250, 1350, 5000, and 5400 MHz at 0° roll, 0° pitch. Median RCS in circular polarization and in linear polarization was independent of frequency. At S-Band the median RCS varied with roll angle most strongly in the two broadside directions. In those two directions the variation was greatest for linear polarization when the radar viewed the lower surface of the aircraft, and was greatest for circular polarization when the radar viewed the upper surface of the aircraft. Median RCS at S-Band was not affected by pitch angle.

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SECTION I

1. Introduction

This document is Volume II of a three-volume set (References 1 and 2) on measurement of static radar cross section (RCS) of light aircraft. The measurement program comprised three types of single-engined aircraft:

a. All-metal high wing
b. All-metal low wing
c. Fabric-covered (high wing)

Type (b), represented by a Cherokee 140, is the subject of this report. Measurements on a Cessna 150L, typical of type (a), are presented in Volume I, (Reference 1), and the data on type (c), a Super Cub, are given in Volume III, (Reference 2).

The objective of the program was to measure static RCS of typical light aircraft over a range of frequencies, polarizations, and aspect angles. These data would aid in defining the need for and amount of RCS enhancement on light aircraft to improve their visibility on FAA airport surveillance radars.

The data measurements were made at the Radar Target Scatter Division (RAT SCAT) of the 6585th Test Group located on the Alkali Flats, Holloman Air Force Base, New Mexico.

2. Description of Target

The RCS data presented in this report were measured on a Model PA-28-140 utility aircraft, serial number 28-24324, manufactured by the Piper Aircraft Corporation, Lock Haven, Pennsylvania. This aircraft is popularly designated as a Cherokee 140. An Airworthiness Certificate was issued 4 March 1968, a Certificate of Aircraft Registration was issued 23 October 1969.

The aircraft (Figure 1) was equipped with a VOR navigation antenna on the vertical stabilizer, and a VHF communication antenna on the cabin roof. The aircraft was flown to the RCS test site each Monday morning and was flown out each Friday afternoon for week-end use by the flying club that owned it.

3. Instrumentation

Data measurements were achieved with a long-pulse radar system operating on a ground plane range. Figure 2 illustrates the components of

the measurement range. The radar transmitter, receiver, control console, and data recorders were housed in a mobile van. The antennas were supported on a mobile tower. Rotation of the target in azimuth was controlled from the van through underground electrical conduit that also returned azimuth synchro signals to the van. A mobile test van was used on this program in order to operate over a range length not available on the RAT SCAT fixed ranges. Sections 1 and 2 of Appendix A and Table A-1 of Appendix A summarize the characteristics of RAT SCAT facilities and equipment. This information applies to the mobile-mounted equipment used for this program as well as to the fixed installations.

The RCS measurements presented in this report were obtained on a ground plane range wherein the target is measured near to the ground. The ground is present as a scattering object and in such a circumstance coupling between orthogonal components of the transmitted and received fields may exist other than the coupling introduced by the target. This coupling (or depolarizing) can be a problem only for measurement in circular polarization. References 3 and 4 describe the theoretical and experimental studies made on the subject specifically for the RAT SCAT range. It was shown that circular polarization measurements can be made on a ground plane range. The size of the useful target region is approximately the same when circular polarization is used as that obtained when linear polarization is used. The amplitude curvature in the vertical plane is the limiting factor in both cases. Standardized calibration procedures used at RAT SCAT assure the accuracy of RCS measurements using circular polarization.

The primary calibration standard for linear polarization was a 26.6 inch diameter precision aluminum sphere and was used at all measurement frequencies. The calibration standard for circular polarization was a ninety-degree dihedral corner with square faces 0.85 meters in each dimension. This corner was calibrated against the precision sphere, making use of a 45° dipole to transfer from linear to circular polarization. The secondary reference standard was a trihedral corner placed approximately at mid-range (see Figure 2). The RCS level of this secondary reference standard was used to set the decibel scale on all recorded RCS patterns and was utilized for both linear and circular polarization.

The radar antennas were parabolic dishes with dipole feeds for linear polarization and planar spiral feeds for circular polarization. Circularity was better than 0.7 db at all frequencies.

4. Procedure

Data on this program were obtained at seven frequencies and three polarizations over a range of roll and pitch angles as summarized in Table I.

Table I - RCS Measurement Matrix

Freq. (MHz)	Polarization	Roll Angle (Degrees)	Pitch Angle (Degrees)
1250	VV,HH,RR	0	0
1350	VV,HH,RR	0	0
2700	VV,--,RR	0,5,10,20,30,45	-10,-5,0,+5,+10
2800	VV,HH,RR	0,5,10,20,30,45	-10,-5,0,+5,+10
2900	VV,--,RR	0,5,10,20,30,45	-10,-5,0,+5,+10
5000	VV,HH,--	0	0
5400	VV,HH,--	0	0

The first letter designating polarization defines the polarization of the transmit antenna, the second letter defines polarization of the receive antenna. The nomenclature follows common practice in which only the spatial orientation of the electric field vector is specified: V for vertical, H for horizontal, R for right-hand circular.

The aircraft was supported at the azimuth turntable on two dielectric columns. The two columns were expanded polystyrene fabricated in vertical wedge sections to form a cone with circular cross section. On top of each column was transition section of expanded polystyrene preshaped to fit the aircraft fuselage and support the target on the columns at the desired roll and pitch attitude. The aircraft was lifted by a mobile crane (Figure 4) and lowered onto the transition sections on top of each column. The aircraft was held in place on the transitions by lengths of parachute cord tied to the fuselage and wings and anchored to winches on the azimuth turntable. In Figure 4 the aircraft has been secured in place and the lifting straps from the crane are being detached from the aircraft. Figure 5 shows the aircraft mounted for RCS measurement at 20° roll, 0° pitch. A more dramatic view is Figure 6, showing the aircraft at 45° roll and 10° negative pitch. The polystyrene collar visible around the aft fuselage in each Figure is the bearing structure for the aft lifting strap from the crane. Target RCS measured at S-Band with and without the collar in place gave identical results. Therefore the collar was left in place at all times to facilitate attaching the aircraft to the crane in case surface wind velocity suddenly increased or became gusty.

The aircraft was set accurately to the desired roll and pitch angle by adjusting tension in the tie-down lines. Roll angle and pitch angle were measured at the propeller hub. The propeller was rotated to an index line, the spinner was removed and a protractor was placed on the propeller hub. Roll angle was measured by sighting a transit on the protractor. Pitch angle was measured on the front of the propeller hub with an inclinometer. Pitch angle thus was measured with respect to the axis of the engine crankshaft. Both roll and pitch were set to an accuracy of ± 0.5 degrees.

Target height was 14 feet at L- and C-Bands, 16 feet at S-Band. Target height is the vertical distance between ground level and a horizontal line (the pitch axis) through the half-height of the fuselage mid way between aircraft nose and tail, measured with the aircraft in level flight attitude. Figure 3 illustrates the relation between target height and the axes of pitch and yaw.

A target being measured on a ground plane range is in an electromagnetic field that is the vector sum of (1) the wave energy that travels directly from antenna to target, (2) the wave energy reflected from the surface of the earth, and (3) the wave energy that travels along the surface of the earth. The vector sum produces an interference pattern. Antenna height is adjusted so that the target is located in the first lobe of the interference pattern described by the equation:

$$H_a = \frac{\lambda R}{4H_t}$$

where H_a is antenna height, H_t is target height, λ is wavelength, and R is range length. In order to obtain accurate RCS measurements the following steps are required.

(a) Adjust antenna height and pointing direction for best field uniformity across the volume occupied by the target.

(b) Tilt the azimuth turntable so the target rotates in the plane of the antenna beam.

(c) Minimize reflections from target supports, tie-downs and turntable.

(d) Calibrate the range at all frequencies and polarizations.

The range parameters used on the program after the above steps were carried out at each frequency are summarized in Table II.

Measurement of RCS began with the three frequencies in S-Band: 2700 MHz, 2800 MHz and 2900 MHz. Because of the large effort required to mount the target for measurement it was prudent to record as many RCS patterns as possible for each mounting of the target. For that reason four antennas were used: one pair for linear polarization, the other pair for circular polarization. The antenna pairs were switched to the radar transmitter and receiver as required. That arrangement allowed measurement of seven RCS patterns for each roll/pitch attitude of the target. If weather conditions remained favorable upon completion of such a pattern group the target was set to the next roll/pitch attitude and RCS measurement went on, continuing until dark. A post-test calibration was then made. If weather became unfavorable (wind velocity above 10 knots, or rain) the target was removed from the turntable and the post-test calibration was made as quickly as possible. In any event the aircraft was not measured in wind velocity above 10 knots or after dark, and the range was calibrated each day before and after a sequence of measurement. The post-test calibration for one day was not used as the pre-test calibration for the next sequence of measurement. The RCS measurements taken each day began with a new calibration.

At L-Band (1250 MHz and 1350 MHz) one pair of antennas was used instead of two pair because only one target roll/pitch attitude was measured (see Table I). The two linear patterns were measured at each frequency followed by the post-test calibration. The linear feeds were replaced by the circular feeds, and a new calibration was made at the two frequencies. The required patterns in circular polarization were then measured and were followed by a post-test calibration.

5. Results

The RCS patterns presented in this report are copies of the original recorded data. Each pattern includes a calibration reference level from which the decibel scale was labelled. Each pattern also is marked with azimuth angle (horizontal scale at the bottom), and is identified as to pitch and roll angle, all of which are defined in Appendix B.

The patterns represent considerable amount of data, containing as they do the dependence of RCS on all combinations of frequency, polarization, roll angle, and pitch angle. Representative relationships, making use of median RCS to simplify the data, are shown in Figures 7 through 10. Median RCS was computed for a 10 degree azimuth increment with a 5 degree overlap.

With the aircraft at zero degrees roll and zero degrees pitch the median RCS in linear polarization and circular polarization was independent of frequency over the range of measurement. In linear polarization the

median RCS was the same for VV as for HH, while a single measurement (Run 527 at 2800 MHz, 0° roll, 0° pitch) indicated a median RCS for VH polarization lower by about 10 db.

The measured RCS patterns show the affect of frequency only for the zero degrees roll, zero degrees pitch attitude of the aircraft. It can be noted that the ratio of fuselage length (7.1m) to wavelength is between 30 and 128 over the measured frequency range, indicating that RCS is in the geometric optics region. From this it can be inferred that median RCS may be independent of frequency at all attitudes of the aircraft.

Figure 7 indicates the affect of positive roll angle (at zero degrees pitch) on median RCS at 2800 MHz, VV polarization. Contours of equal RCS in dbsm are plotted in the azimuth-roll plane. Vertical lines through the plot indicate the affect of roll angle at a given azimuth direction. Variation of RCS with roll (at 0° pitch) was greatest in the 270° broadside direction in which the radar viewed the underside of the aircraft as the aircraft rolled.

In circular polarization the reverse was true--the 90° broadside direction in which the radar viewed the upper surface of the aircraft as the aircraft rolled had the greater RCS variation with roll angle. Figure 8 shows the affect of roll angle (at zero degrees pitch) on median RCS.

The affect of pitch angle (at zero degrees roll) is illustrated in Figure 9 for VV polarization at 2800 MHz. Vertical lines through the graph show the affect of pitch angle for fixed azimuth directions. The variation over the $\pm$10 degree range of pitch angle is less than 5 db, a trivial amount. The same can be said of circular polarization shown in Figure 10.

6. References

(1) AFSWC-TR-73-46, Volume I, Static RCS of Light Aircraft, Cessna 150L at L-, S-, C-Band, Dec 1973.

(2) AFSWC-TR-73-46, Volume III, Static RCS of Light Aircraft, Super Cub at L-, S-, C-Band, Dec 1973.

(3) RADC-TDR-63-484, An Analysis of the Polarization Capabilities of a Ground Plane Cross Section Range, October 1963.

(4) RADC-TDR-64-380, Experimental Results of Circular Polarization and Scattering Matrix Measurements, June 1964.

Table II Test Range Parameters for Cherokee 140 RCS Measurements

Freq. (MHz)	Target Ht. (ft)	Antenna Ht.	Antenna Diameter (ft)	Range (ft)	Table Tilt (Min)
1250	14	12'-6"	10	1150	42
1350	14	12'-6"	10	1150	42
2700	16	12'-6"	6	2100	26
2800	16	12'-6"	6	2100	26
2900	16	12'-6"	6	2100	26
5000	14	6'-5"	4	2100	23
5400	14	5'-10"	4	2100	23

Figure 1 Cherokee 140 Light Aircraft

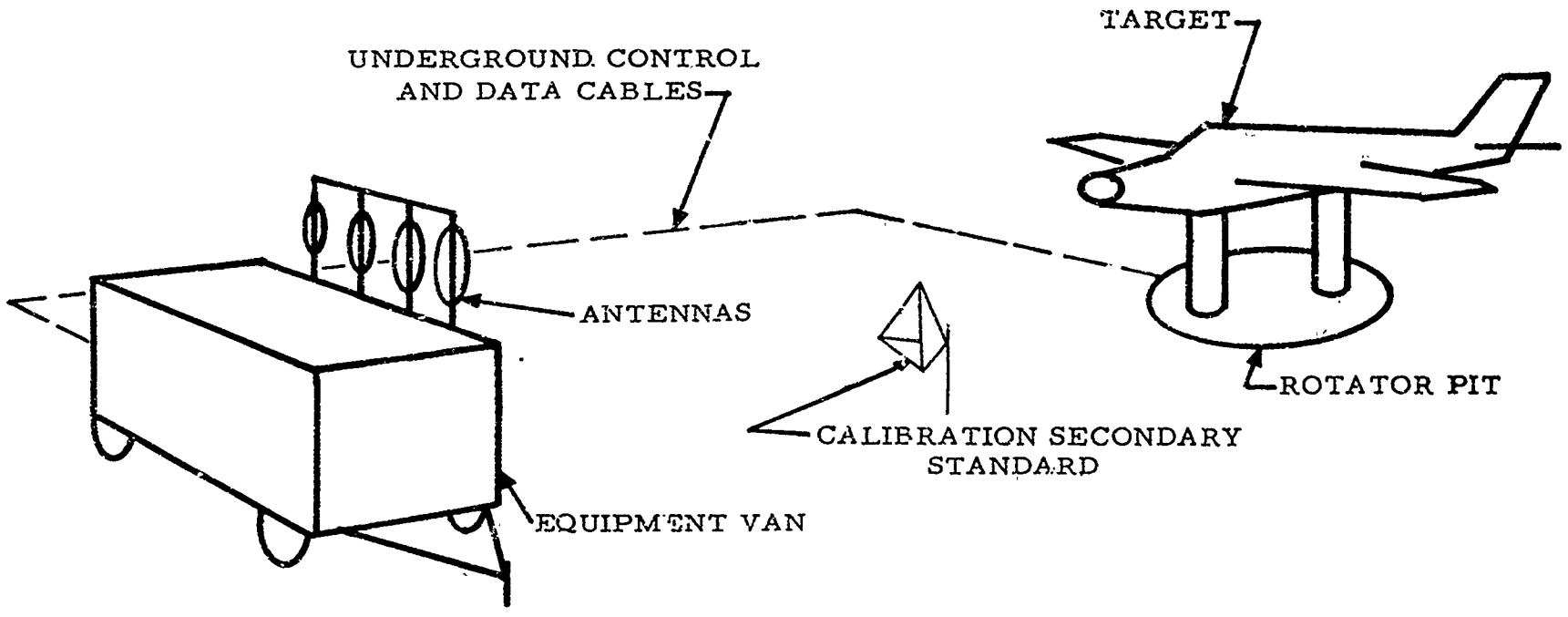


Figure 2 Elements of the Radar Measurement Range

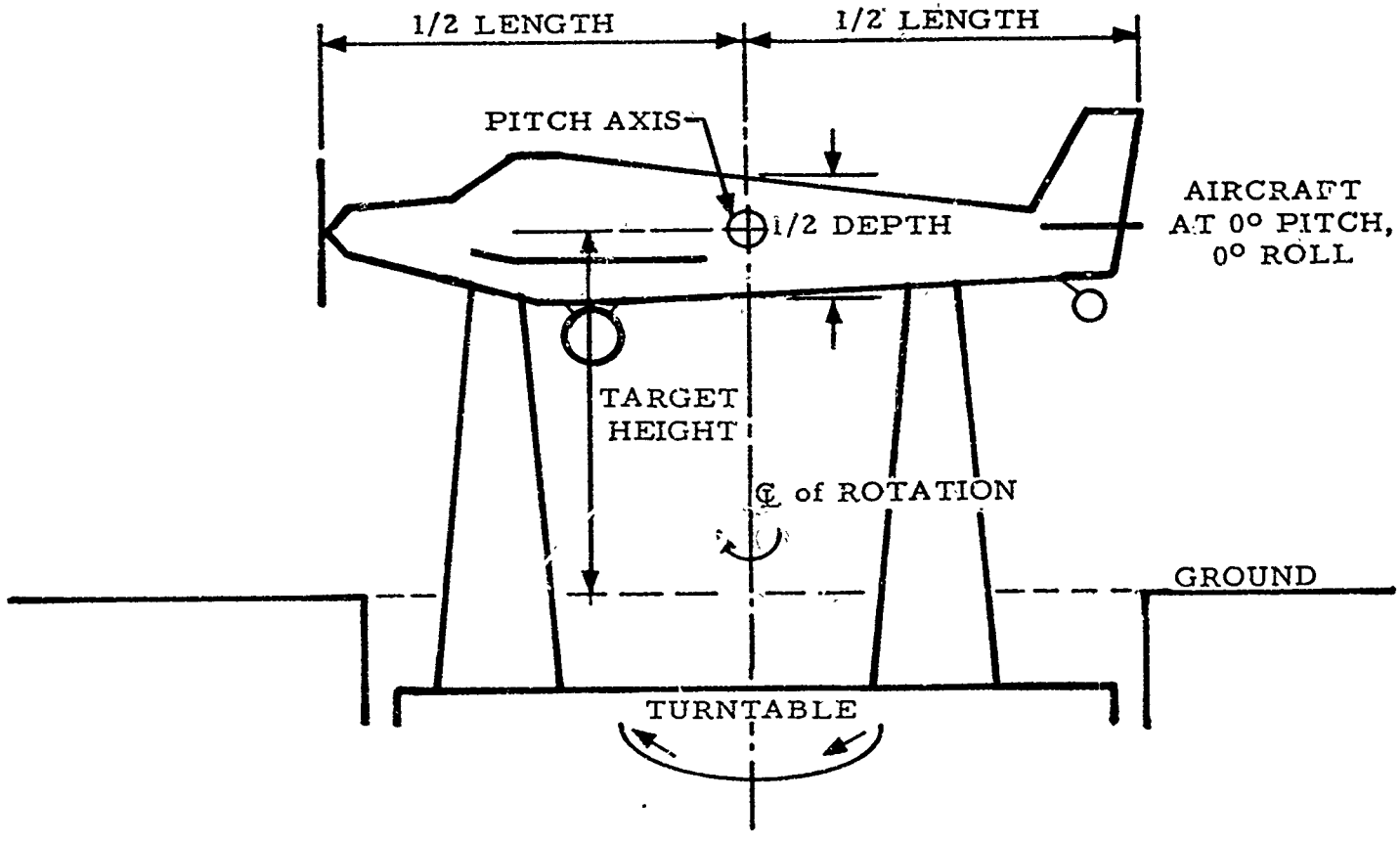


Figure 3 Aircraft Mounting Geometry Showing Location of Pitch Axis, Yaw Axis and Designation of Target Height

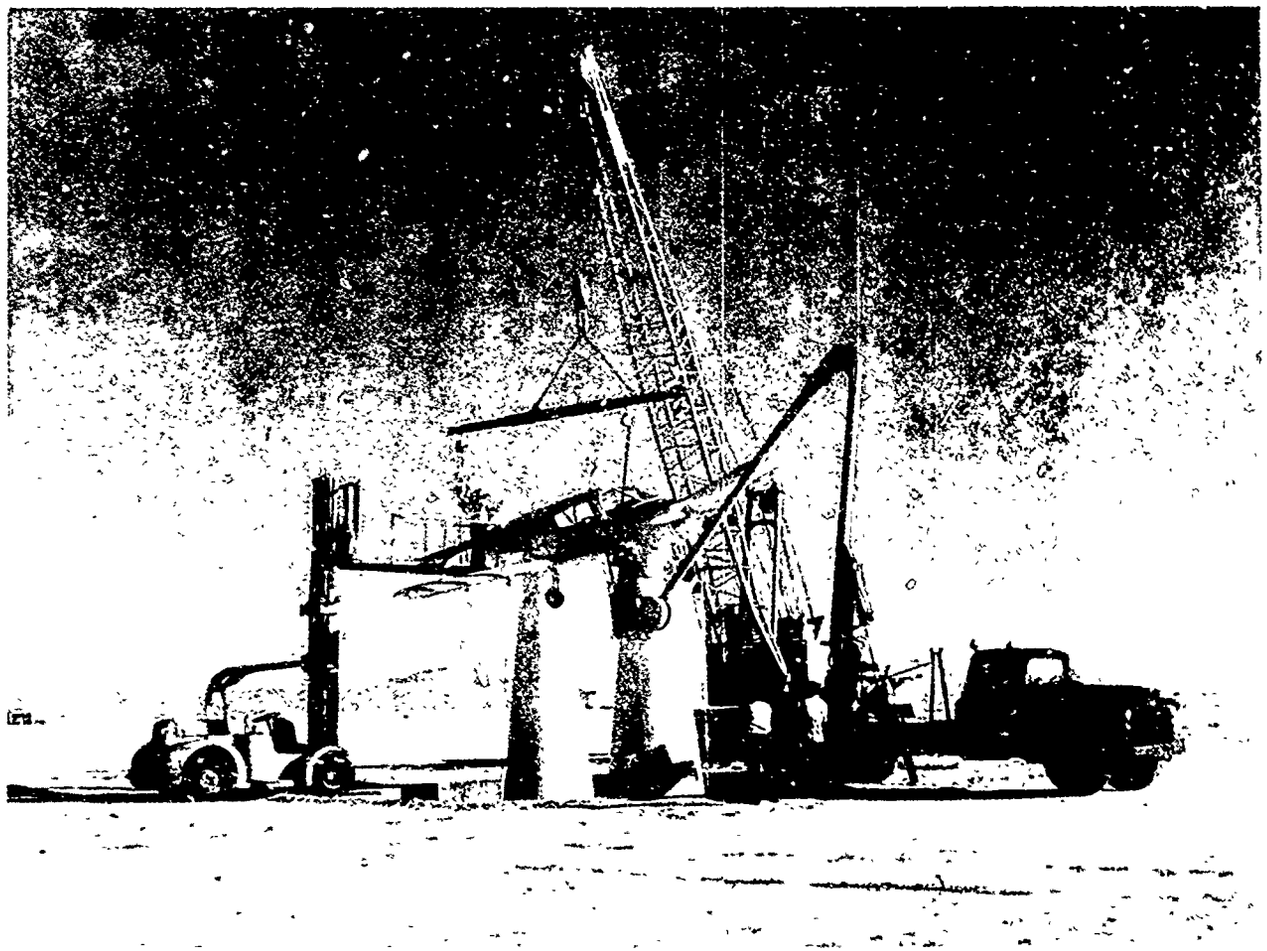


Figure 4 Cherokee 140 being Mounted for RCS Measurement at 20° Roll, 0° Pitch

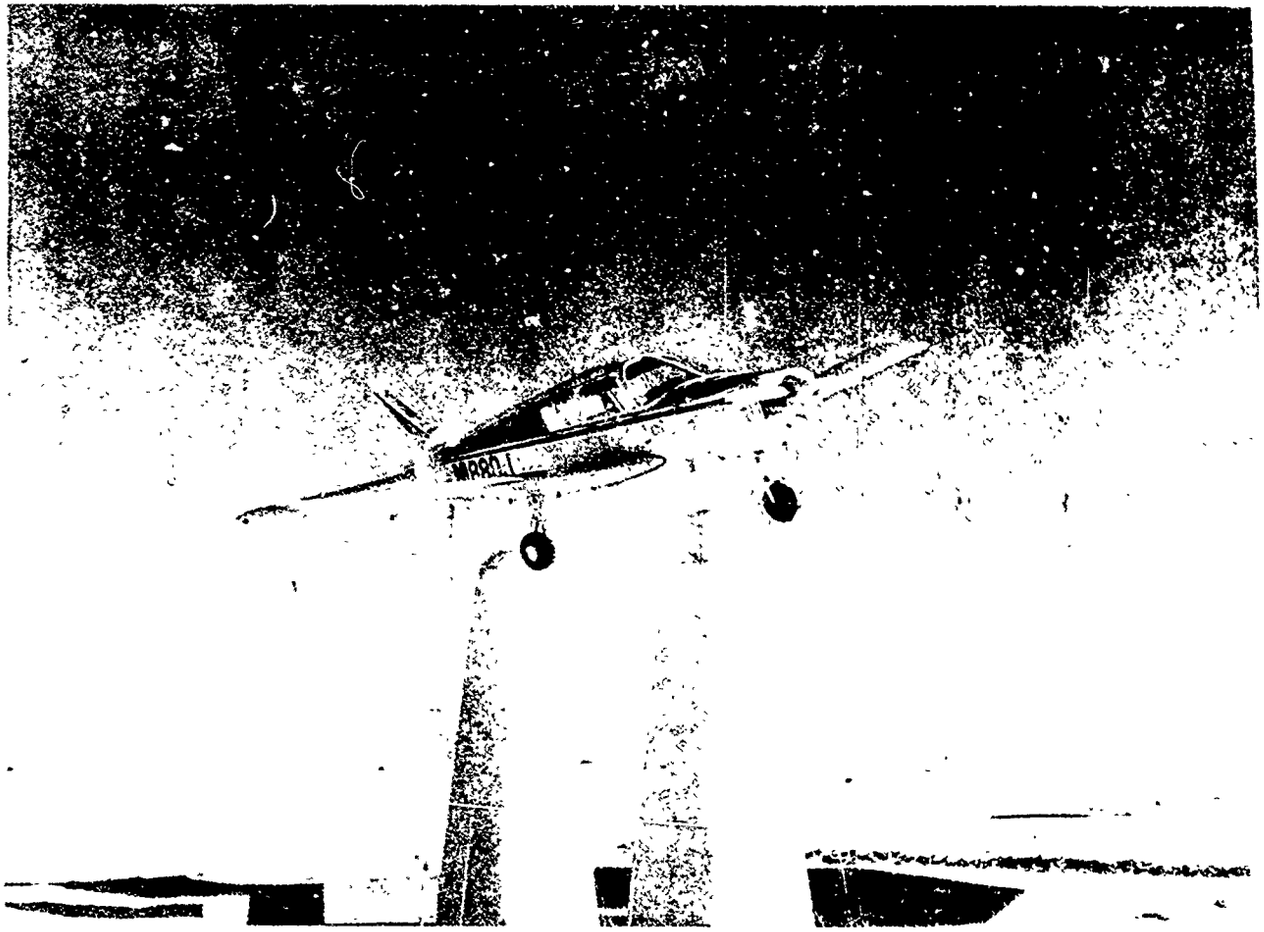


Figure 5 Cherokee 140 Ready for Test at 20° Roll, 0° Pitch

Figure 6 Cherokee 140 Mounted for RCS Measurement at 45° Roll, -10° Pitch

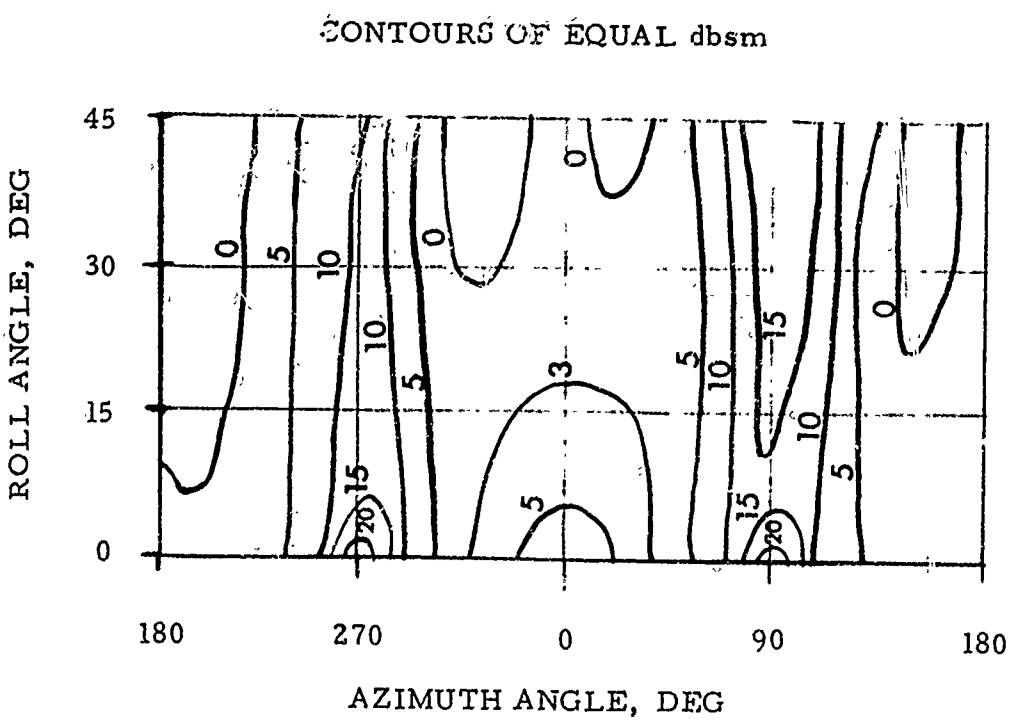


Figure 7 RCS vs Roll Angle at 0° Pitch Angle for 2800MHz, VV Polarization

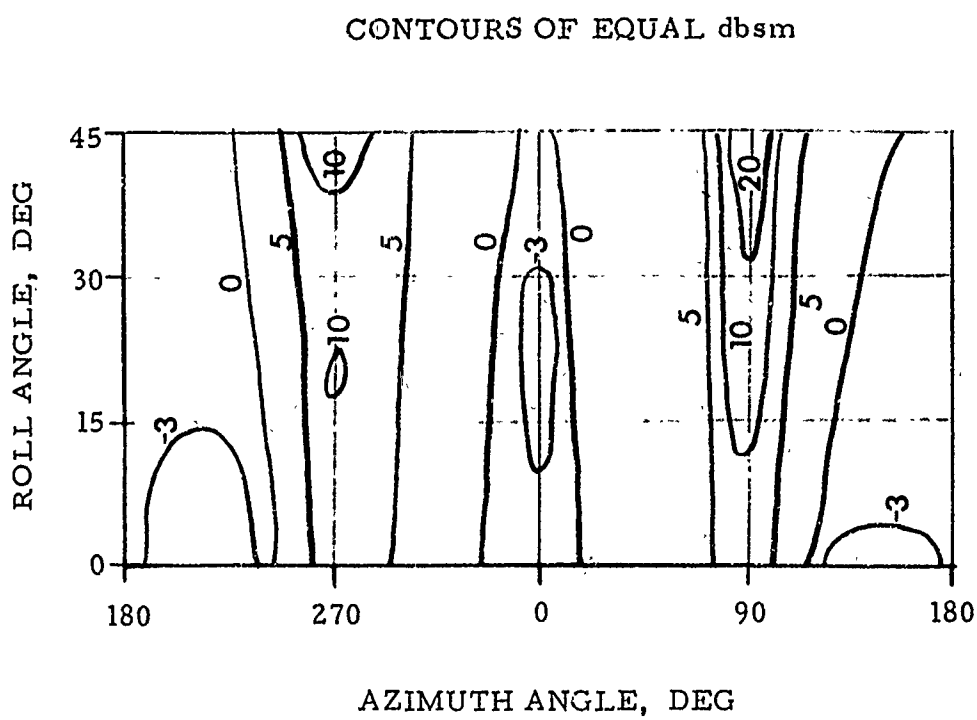


Figure 8 RCS vs. Roll Angle at 0° Pitch Angle for 2800 MHz, RR Polarization

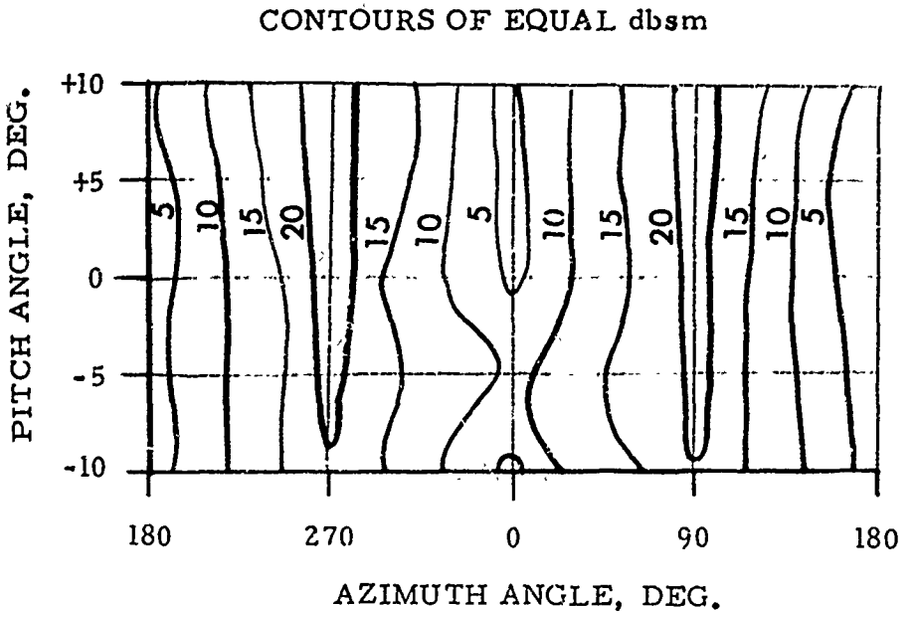


Figure 9 RCS vs. Pitch Angle at 0° Roll Angle for 2800 MHz, VV Polarization

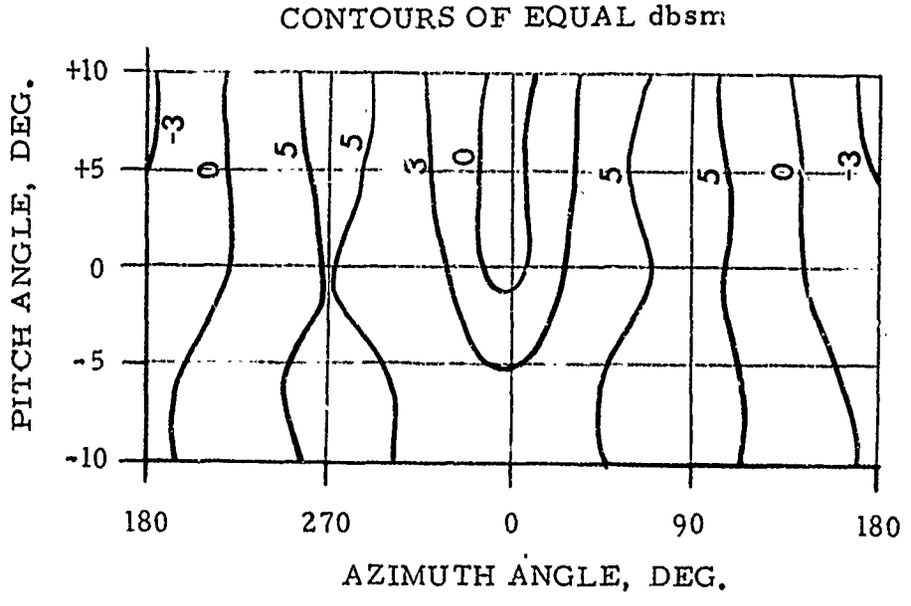


Figure 10 RCS vs. Pitch Angle at 0° Roll Angle for 2800 MHz, RR Polarization

CONTROL NUMBER 73-01 Table III DATA PLOT INDEX Sheet 1

PAGE NO.	RUN	FREQ (MHz)	POLARI-ZATION	PITCH ANGLE	ROLL ANGLE	TARGET CONFIGURATION AND REMARKS
25	573	2700	VV	-10	0	Cherokee 140 Airplane
26	560	2700	VV	- 5	0	Cherokee 140 Airplane
27	528	2700	VV	0	0	Cherokee 140 Airplane
28	530	2700	VV	+ 5	0	Cherokee 140 Airplane
29	543	2700	VV	+10	0	Cherokee 140 Airplane
30	574	2700	VV	-10	5	Cherokee 140 Airplane
31	595	2700	VV	- 5	5	Cherokee 140 Airplane
32	608	2700	VV	0	5	Cherokee 140 Airplane
33	609	2700	VV	+ 5	5	Cherokee 140 Airplane
34	643	2700	VV	+10	5	Cherokee 140 Airplane
35	706	2700	VV	-10	10	Cherokee 140 Airplane
36	679	2700	VV	- 5	10	Cherokee 140 Airplane
37	672	2700	VV	0	10	Cherokee 140 Airplane
38	652	2700	VV	+ 5	10	Cherokee 140 Airplane
39	645	2700	VV	+10	10	Cherokee 140 Airplane
40	707	2700	VV	-10	20	Cherokee 140 Airplane
41	735	2700	VV	- 5	20	Cherokee 140 Airplane
42	756	2700	VV	0	20	Cherokee 140 Airplane
43	769	2700	VV	+ 5	20	Cherokee 140 Airplane
44	770	2700	VV	+10	20	Cherokee 140 Airplane
45	784	2700	VV	-10	30	Cherokee 140 Airplane
46	786	2700	VV	- 5	30	Cherokee 140 Airplane
47	813	2700	VV	0	30	Cherokee 140 Airplane
48	814	2700	VV	+ 5	30	Cherokee 140 Airplane
49	827	2700	VV	+10	30	Cherokee 140 Airplane
50	877	2700	VV	-10	45	Cherokee 140 Airplane
51	864	2700	VV	- 5	45	Cherokee 140 Airplane
52	843	2700	VV	0	45	Cherokee 140 Airplane
53	836	2700	VV	+ 5	45	Cherokee 140 Airplane
54	828	2700	VV	+10	45	Cherokee 140 Airplane

CONTROL NUMBER 73-01 Table III DATA PLOT INDEX Sheet 2

PAGE NO.	RUN	FREQ (MHz)	POLARIZATION	PITCH ANGLE	ROLL ANGLE	TARGET CONFIGURATION AND REMARKS
55	572	2700	RR	-10	0	Cherokee 140 Airplane
56	561	2700	RR	- 5	0	Cherokee 140 Airplane
57	529	2700	RR	0	0	Cherokee 140 Airplane
58	531	2700	RR	+ 5	0	Cherokee 140 Airplane
59	542	2700	RR	+10	0	Cherokee 140 Airplane
60	575	2700	RR	-10	5	Cherokee 140 Airplane
61	596	2700	RR	- 5	5	Cherokee 140 Airplane
62	607	2700	RR	0	5	Cherokee 140 Airplane
63	610	2700	RR	+ 5	5	Cherokee 140 Airplane
64	642	2700	RR	+10	5	Cherokee 140 Airplane
65	705	2700	RR	-10	10	Cherokee 140 Airplane
66	680	2700	RR	- 5	10	Cherokee 140 Airplane
67	673	2700	RR	0	10	Cherokee 140 Airplane
68	653	2700	RR	+ 5	10	Cherokee 140 Airplane
69	646	2700	RR	+10	10	Cherokee 140 Airplane
70	708	2700	RR	-10	20	Cherokee 140 Airplane
71	736	2700	RR	- 5	20	Cherokee 140 Airplane
72	757	2700	RR	0	20	Cherokee 140 Airplane
73	768	2700	RR	+ 5	20	Cherokee 140 Airplane
74	771	2700	RR	+10	20	Cherokee 140 Airplane
75	785	2700	RR	-10	30	Cherokee 140 Airplane
76	787	2700	RR	- 5	30	Cherokee 140 Airplane
77	812	2700	RR	0	30	Cherokee 140 Airplane
78	815	2700	RR	+ 5	30	Cherokee 140 Airplane
79	826	2700	RR	+10	30	Cherokee 140 Airplane
80	876	2700	RR	-10	45	Cherokee 140 Airplane
81	865	2700	RR	- 5	45	Cherokee 140 Airplane
82	844	2700	RR	0	45	Cherokee 140 Airplane
83	837	2700	RR	+ 5	45	Cherokee 140 Airplane
84	829	2700	RR	+10	45	Cherokee 140 Airplane

CONTROL NUMBER 73-01 Table III DATA PLOT INDEX Sheet 3

PAGE NO.	RUN	FREQ (MHz)	POLARI-ZATION	PITCH ANGLE	ROLL ANGLE	TARGET CONFIGURATION AND REMARKS
85	570	2800	V	-10	0	Cherokee 140 Airplane
86	563	2800	VV	- 5	0	Cherokee 140 Airplane
87	525	2800	VV	0	0	Cherokee 140 Airplane
88	533	2800	VV	+ 5	0	Cherokee 140 Airplane
89	540	2800	VV	+10	0	Cherokee 140 Airplane
90	577	2800	VV	-10	5	Cherokee 140 Airplane
91	598	2800	VV	- 5	5	Cherokee 140 Airplane
92	605	2800	VV	0	5	Cherokee 140 Airplane
93	612	2800	VV	+ 5	5	Cherokee 140 Airplane
94	640	2800	VV	+10	5	Cherokee 140 Airplane
95	704	2800	VV	-10	10	Cherokee 140 Airplane
96	683	2800	VV	- 5	10	Cherokee 140 Airplane
97	675	2800	VV	0	10	Cherokee 140 Airplane
98	670	2800	VV	+ 5	10	Cherokee 140 Airplane
99	649	2800	VV	+10	10	Cherokee 140 Airplane
100	724	2800	VV	-10	20	Cherokee 140 Airplane
101	738	2800	VV	- 5	20	Cherokee 140 Airplane
102	760	2800	VV	0	20	Cherokee 140 Airplane
103	765	2800	VV	+ 5	20	Cherokee 140 Airplane
104	774	2800	VV	+10	20	Cherokee 140 Airplane
105	783	2800	VV	-10	30	Cherokee 140 Airplane
106	790	2800	VV	- 5	30	Cherokee 140 Airplane
107	811	2800	VV	0	30	Cherokee 140 Airplane
108	816	2800	VV	+ 5	30	Cherokee 140 Airplane
109	825	2800	VV	+10	30	Cherokee 140 Airplane
110	875	2800	VV	-10	45	Cherokee 140 Airplane
111	868	2800	VV	- 5	45	Cherokee 140 Airplane
112	847	2800	VV	0	45	Cherokee 140 Airplane
113	840	2800	VV	+ 5	45	Cherokee 140 Airplane
114	830	2800	VV	+10	45	Cherokee 140 Airplane

CONTROL NUMBER 73-01 Table III DATA PLOT INDEX Sheet 4

PAGE NO.	RUN	FREQ (MHz)	POLARIZATION	PITCH ANGLE	ROLL ANGLE	TARGET CONFIGURATION AND REMARKS
115	571	2800	HH	-10	0	Cherokee 140 Airplane
116	564	2800	HH	- 5	0	Cherokee 140 Airplane
117	526	2800	HH	0	0	Cherokee 140 Airplane
118	534	2800	HH	+ 5	0	Cherokee 140 Airplane
119	541	2800	HH	+10	0	Cherokee 140 Airplane
120	578	2800	HH	-10	5	Cherokee 140 Airplane
121	599	2800	HH	- 5	5	Cherokee 140 Airplane
122	604	2800	HH	0	5	Cherokee 140 Airplane
123	613	2800	HH	+ 5	5	Cherokee 140 Airplane
124	641	2800	HH	+10	5	Cherokee 140 Airplane
125	703	2800	HH	-10	10	Cherokee 140 Airplane
126	681	2800	HH	- 5	10	Cherokee 140 Airplane
127	676	2800	HH	0	10	Cherokee 140 Airplane
128	671	2800	HH	+ 5	10	Cherokee 140 Airplane
129	648	2800	HH	+10	10	Cherokee 140 Airplane
130	709	2800	HH	-10	20	Cherokee 140 Airplane
131	739	2800	HH	- 5	20	Cherokee 140 Airplane
132	759	2800	HH	0	20	Cherokee 140 Airplane
133	766	2800	HH	+ 5	20	Cherokee 140 Airplane
134	773	2800	HH	+10	20	Cherokee 140 Airplane
135	781	2800	HH	-10	30	Cherokee 140 Airplane
136	788	2800	HH	- 5	30	Cherokee 140 Airplane
137	810	2800	HH	0	30	Cherokee 140 Airplane
138	817	2800	HH	+ 5	30	Cherokee 140 Airplane
139	824	2800	HH	+10	30	Cherokee 140 Airplane
140	874	2800	HH	-10	45	Cherokee 140 Airplane
141	867	2800	HH	- 5	45	Cherokee 140 Airplane
142	845	2800	HH	0	45	Cherokee 140 Airplane
143	838	2800	HH	+ 5	45	Cherokee 140 Airplane
144	831	2800	HH	+10	45	Cherokee 140 Airplane
145	527	2800	VH	0	0	Cherokee 140 Airplane, Cross polarized pattern

CONTROL NUMBER 73-01 Table III DATA PLOT INDEX Sheet 5

PAGE NO.	RUN	FREQ (MHz)	POLARIZATION	PITCH ANGLE	ROLL ANGLE	TARGET CONFIGURATION AND REMARKS
146	569	2800	RR	-10	0	Cherokee 140 Airplane
147	562	2800	RR	- 5	0	Cherokee 140 Airplane
148	512	2800	RR	0	0	Cherokee 140 Airplane
149	532	2800	RR	+ 5	0	Cherokee 140 Airplane
150	544	2800	RR	+10	0	Cherokee 140 Airplane
151	576	2800	RR	-10	5	Cherokee 140 Airplane
152	597	2800	RR	- 5	5	Cherokee 140 Airplane
153	606	2800	RR	0	5	Cherokee 140 Airplane
154	611	2800	RR	+ 5	5	Cherokee 140 Airplane
155	618	2800	RR	+10	5	Cherokee 140 Airplane
156	702	2800	RR	-10	10	Cherokee 140 Airplane
157	682	2800	RR	- 5	10	Cherokee 140 Airplane
158	674	2800	RR	0	10	Cherokee 140 Airplane
159	669	2800	RR	+ 5	10	Cherokee 140 Airplane
160	647	2800	RR	+10	10	Cherokee 140 Airplane
161	725	2800	RR	-10	20	Cherokee 140 Airplane
162	737	2800	RR	- 5	20	Cherokee 140 Airplane
163	758	2800	RR	0	20	Cherokee 140 Airplane
164	767	2800	RR	+ 5	20	Cherokee 140 Airplane
165	772	2800	RR	+10	20	Cherokee 140 Airplane
166	782	2800	RR	-10	30	Cherokee 140 Airplane
167	789	2800	RR	- 5	30	Cherokee 140 Airplane
168	809	2800	RR	0	30	Cherokee 140 Airplane
169	818	2800	RR	+ 5	30	Cherokee 140 Airplane
170	823	2800	RR	+10	30	Cherokee 140 Airplane
171	873	2800	RR	-10	45	Cherokee 140 Airplane
172	866	2800	RR	- 5	45	Cherokee 140 Airplane
173	846	2800	RR	0	45	Cherokee 140 Airplane
174	839	2800	RR	+ 5	45	Cherokee 140 Airplane
175	835	2800	RR	+10	45	Cherokee 140 Airplane
176	42	2900	RR	N/A	N/A	Background, Courses 90/91 with 0° Roll, 0° Pitch Transitions

CONTROL NUMBER 73-01 Table III DATA PLOT INDEX Sheet 6

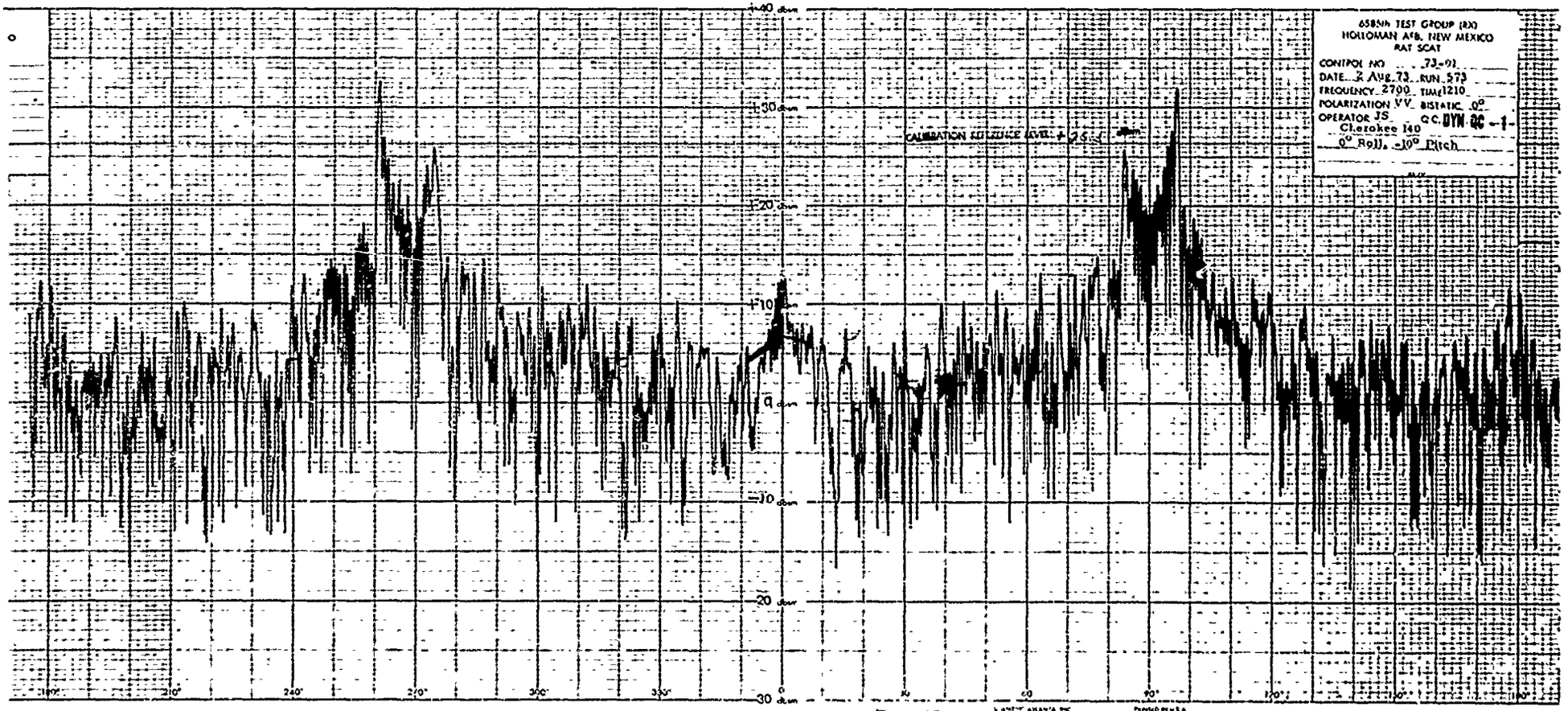
PAGE NO.	RUN	FREQ (MHz)	POLARI-ZATION	PITCH ANGLE	ROLL ANGLE	TARGET CONFIGURATION AND REMARKS
177	567	2900	VV	-10	0	Cherokee 140 Airplane
178	566	2900	VV	- 5	0	Cherokee 140 Airplane
179	511	2900	VV	0	0	Cherokee 140 Airplane
180	536	2900	VV	+ 5	0	Cherokee 140 Airplane
181	537	2900	VV	+10	0	Cherokee 140 Airplane
182	580	2900	VV	-10	5	Cherokee 140 Airplane
183	601	2900	VV	- 5	5	Cherokee 140 Airplane
184	602	2900	VV	0	5	Cherokee 140 Airplane
185	615	2900	VV	+ 5	5	Cherokee 140 Airplane
186	616	2900	VV	+10	5	Cherokee 140 Airplane
187	700	2900	VV	-10	10	Cherokee 140 Airplane
188	684	2900	VV	- 5	10	Cherokee 140 Airplane
189	678	2900	VV	0	10	Cherokee 140 Airplane
190	667	2900	VV	+ 5	10	Cherokee 140 Airplane
191	651	2900	VV	+10	10	Cherokee 140 Airplane
192	777	2900	VV	-10	20	Cherokee 140 Airplane
193	741	2900	VV	- 5	20	Cherokee 140 Airplane
194	762	2900	VV	0	20	Cherokee 140 Airplane
195	763	2900	VV	+ 5	20	Cherokee 140 Airplane
196	776	2900	VV	+10	20	Cherokee 140 Airplane
197	779	2900	VV	-10	30	Cherokee 140 Airplane
198	791	2900	VV	- 5	30	Cherokee 140 Airplane
199	807	2900	VV	0	30	Cherokee 140 Airplane
200	820	2900	VV	+ 5	30	Cherokee 140 Airplane
201	821	2900	VV	+10	30	Cherokee 140 Airplane
202	871	2900	VV	-10	45	Cherokee 140 Airplane
203	870	2900	VV	- 5	45	Cherokee 140 Airplane
204	848	2900	VV	0	45	Cherokee 140 Airplane
205	841	2900	VV	+ 5	45	Cherokee 140 Airplane
206	834	2900	VV	+10	45	Cherokee 140 Airplane

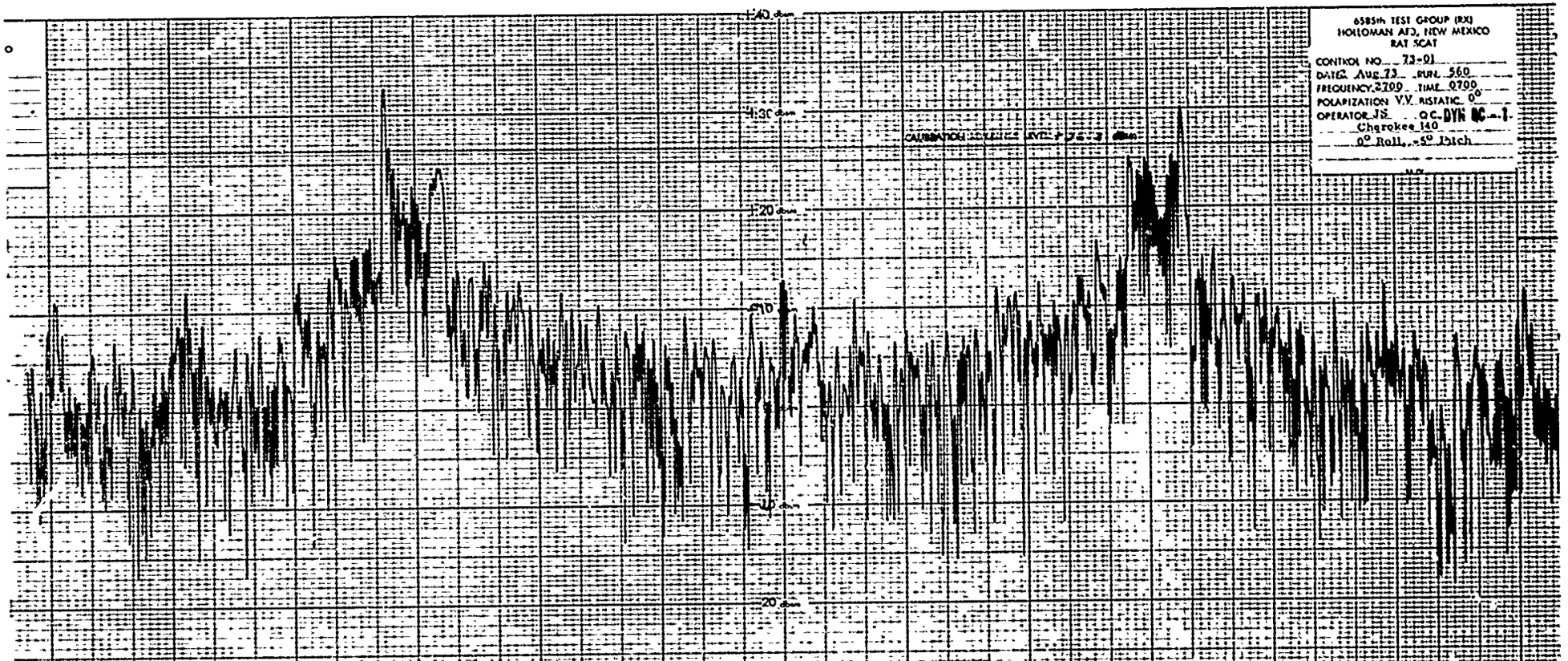
CONTROL NUMBER 73-01 Table III DATA PLOT INDEX Sheet 7

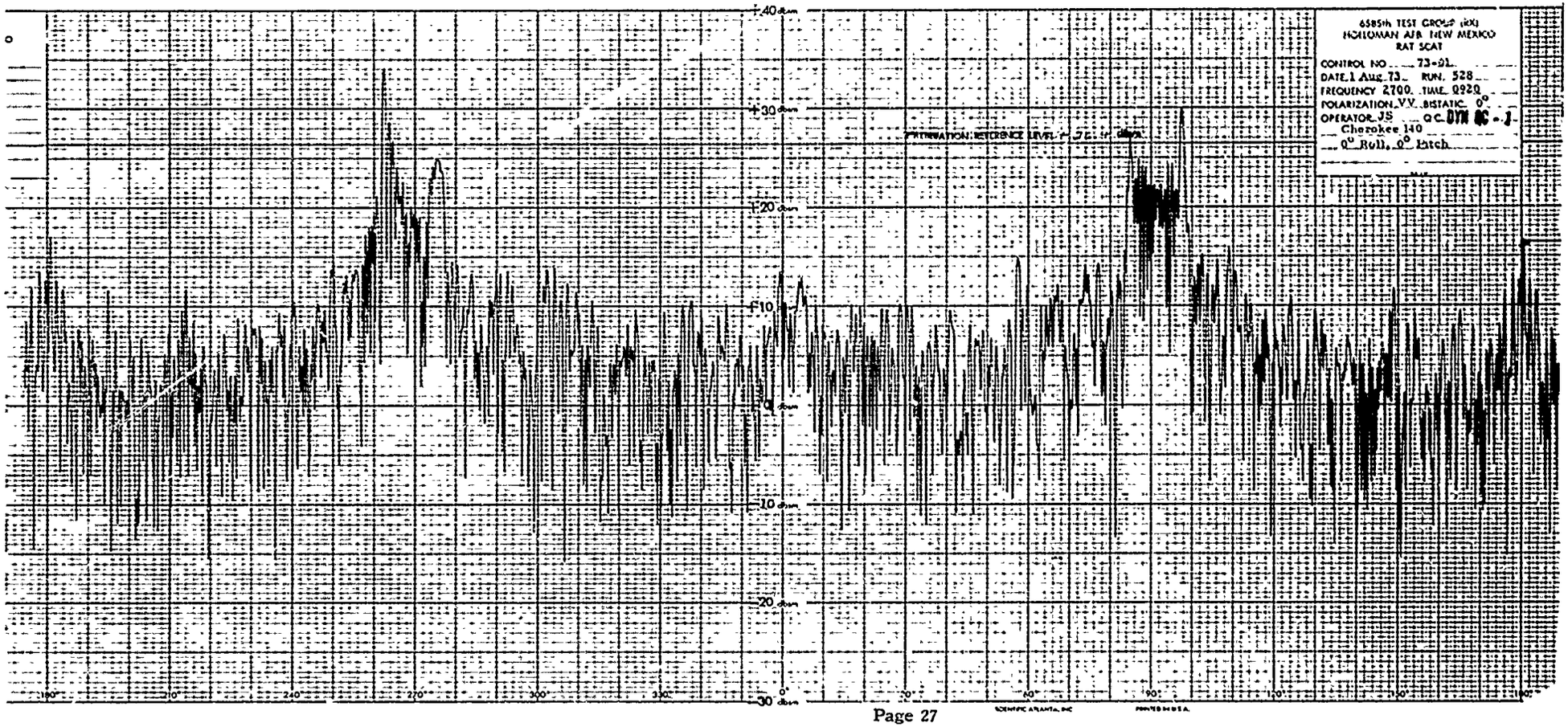
PAGE NO.	RUN	FREQ (MHz)	POLARIZATION	PITCH ANGLE	ROLL ANGLE	TARGET CONFIGURATION AND REMARKS
207	568	2900	RR	-10	0	Cherokee 140 Airplane
208	565	2900	RR	- 5	0	Cherokee 140 Airplane
209	510	2900	RR	0	0	Cherokee 140 Airplane
210	535	2900	RR	+ 5	0	Cherokee 140 Airplane
211	538	2900	RR	+10	0	Cherokee 140 Airplane
212	579	2900	RR	-10	5	Cherokee 140 Airplane
213	600	2900	RR	- 5	5	Cherokee 140 Airplane
214	603	2900	RR	0	5	Cherokee 140 Airplane
215	614	2900	RR	+ 5	5	Cherokee 140 Airplane
216	617	2900	RR	+10	5	Cherokee 140 Airplane
217	701	2900	RR	-10	10	Cherokee 140 Airplane
218	685	2900	RR	- 5	10	Cherokee 140 Airplane
219	677	2900	RR	0	10	Cherokee 140 Airplane
220	668	2900	RR	+ 5	10	Cherokee 140 Airplane
221	650	2900	RR	+10	10	Cherokee 140 Airplane
222	778	2900	RR	-10	20	Cherokee 140 Airplane
223	740	2900	RR	- 5	20	Cherokee 140 Airplane
224	761	2900	RR	0	20	Cherokee 140 Airplane
225	764	2900	RR	+ 5	20	Cherokee 140 Airplane
226	775	2900	RR	+10	20	Cherokee 140 Airplane
227	780	2900	RR	-10	30	Cherokee 140 Airplane
228	792	2900	RR	- 5	30	Cherokee 140 Airplane
229	808	2900	RR	0	30	Cherokee 140 Airplane
230	819	2900	RR	+ 5	30	Cherokee 140 Airplane
231	822	2900	RR	+10	30	Cherokee 140 Airplane
232	872	2900	RR	-10	45	Cherokee 140 Airplane
233	869	2900	RR	- 5	45	Cherokee 140 Airplane
234	849	2900	RR	0	45	Cherokee 140 Airplane
235	842	2900	RR	+ 5	45	Cherokee 140 Airplane
236	833	2900	RR	+10	45	Cherokee 140 Airplane

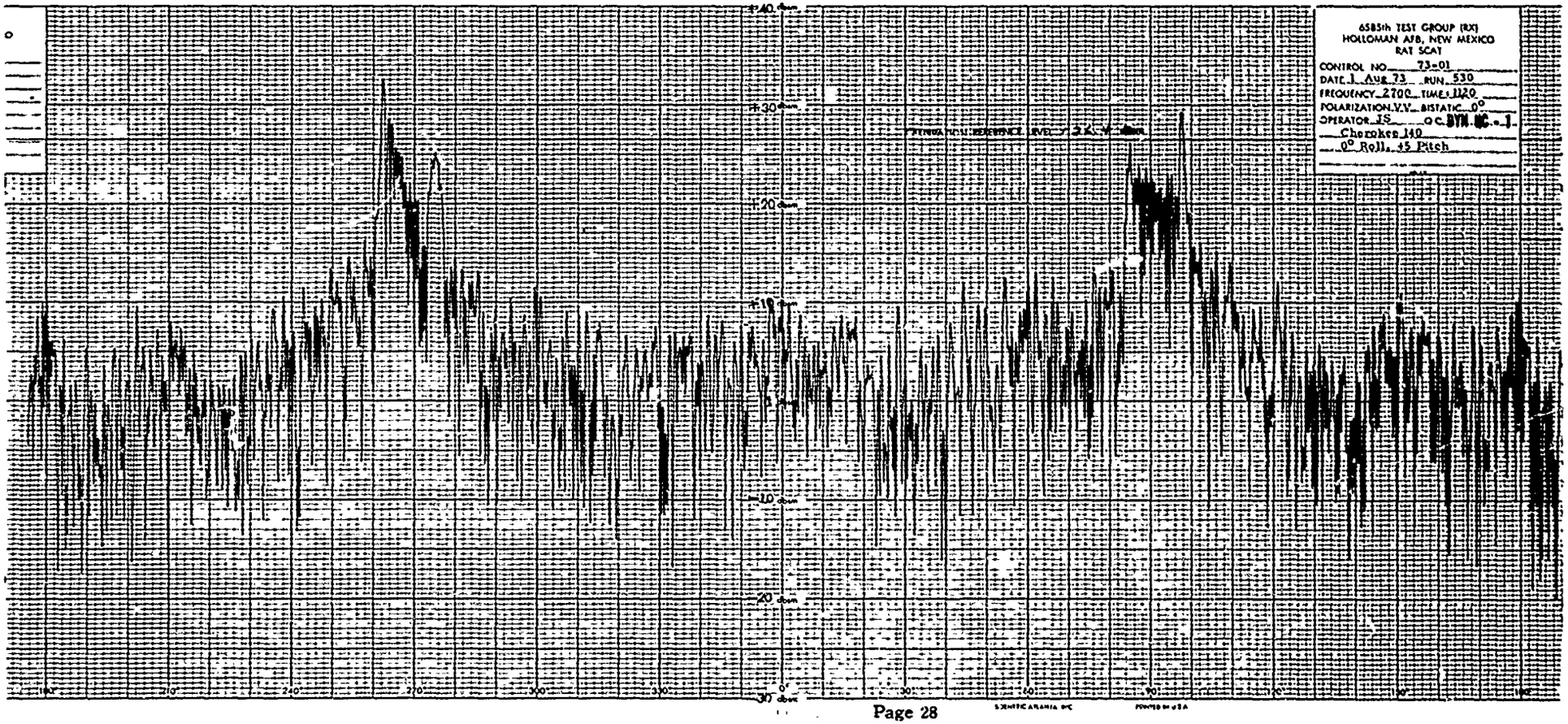
CONTROL NUMBER 73-01 Table III DATA PLOT INDEX Sheet 8

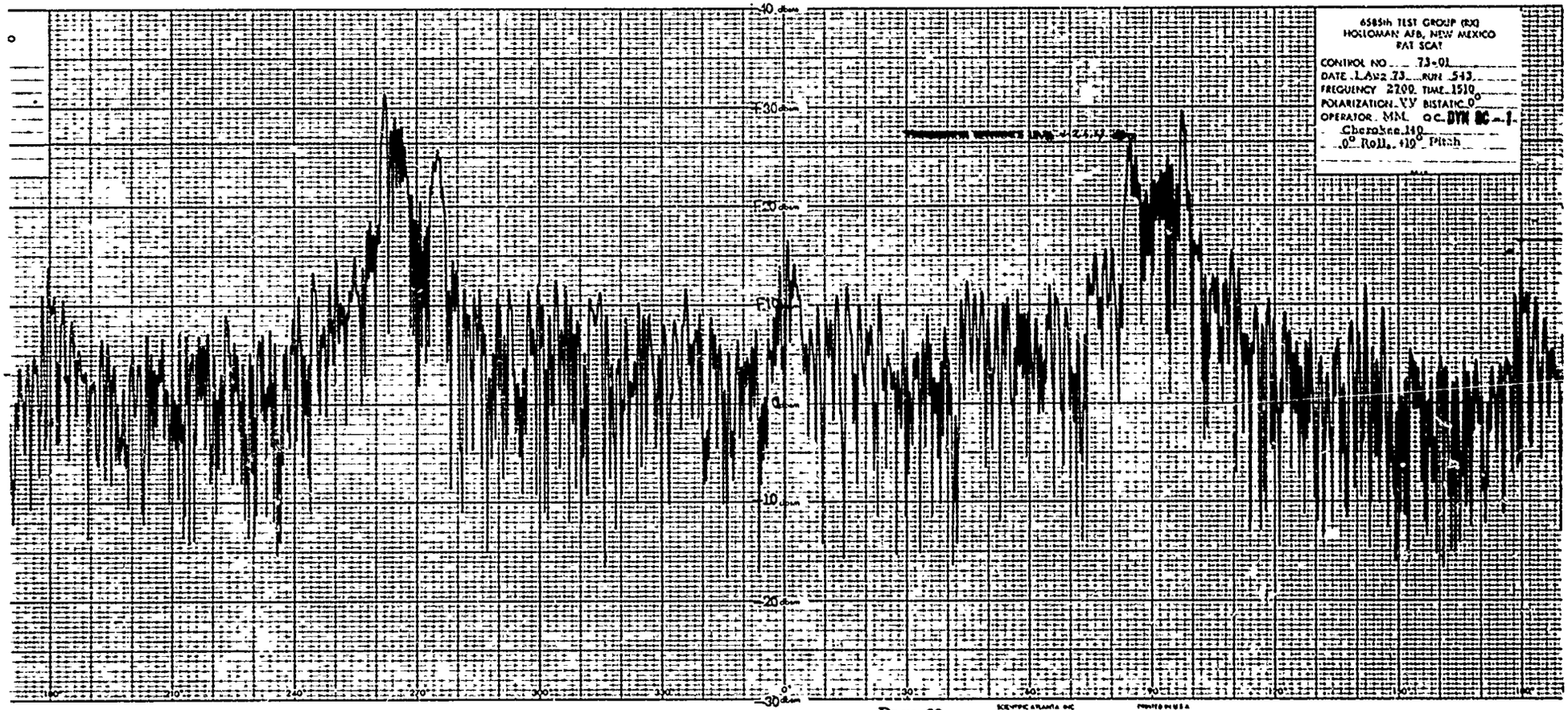
PAGE NO.	RUN	FREQ (MHz)	POLARIZATION	PITCH ANGLE	ROLL ANGLE	TARGET CONFIGURATION AND REMARKS
237	1516	1250	VV	0	0	Cherokee 140 Airplane
238	1517	1250	HH	0	0	Cherokee 140 Airplane
239	1530	1250	RR	0	0	Cherokee 140 Airplane
240	1519	1350	VV	0	0	Cherokee 140 Airplane
241	1518	1350	HH	0	0	Cherokee 140 Airplane
242	1531	1350	RR	0	0	Cherokee 140 Airplane
243	1557	5000	VV	0	0	Cherokee 140 Airplane
244	1558	5000	HH	0	0	Cherokee 140 Airplane
245	1560	5400	VV	0	0	Cherokee 140 Airplane
246	1559	5400	HH	0	0	Cherokee 140 Airplane

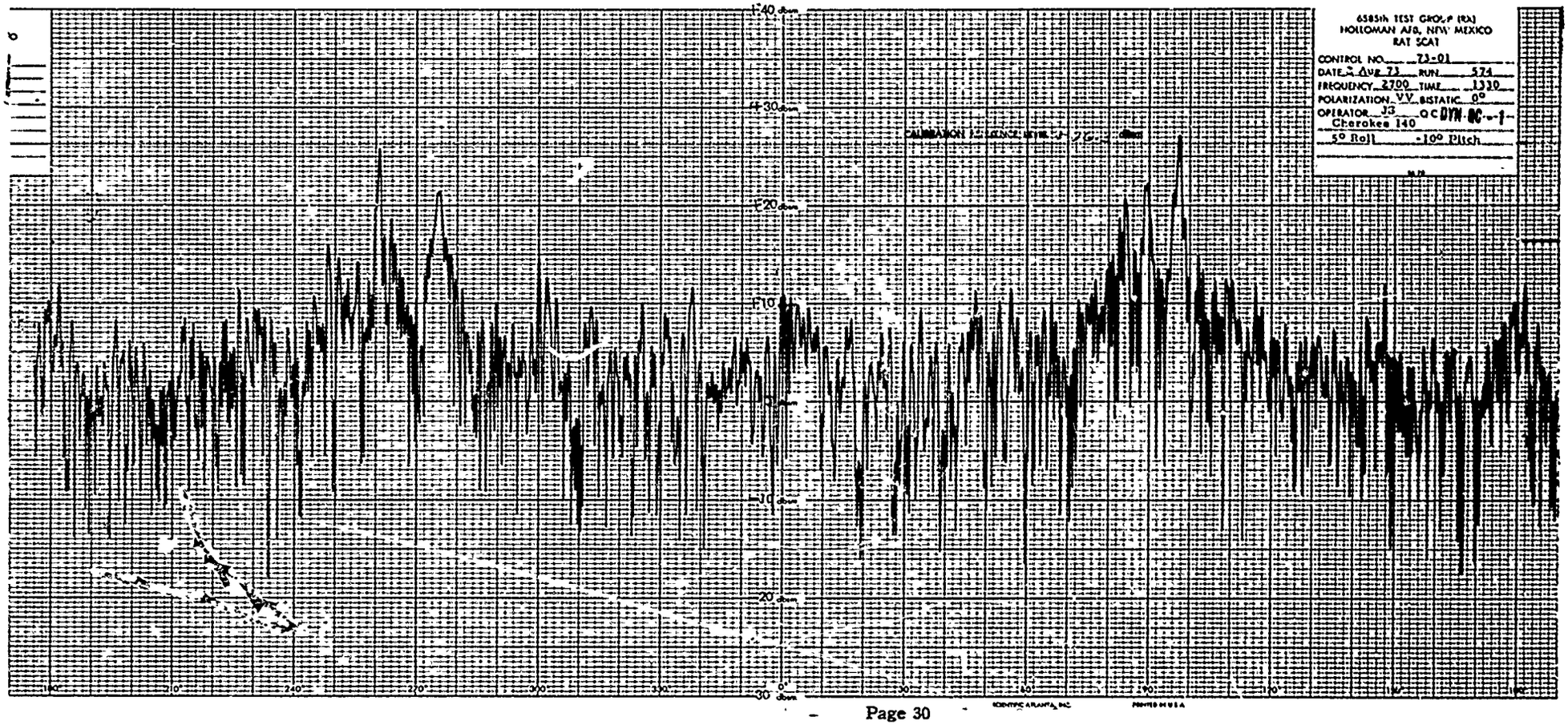

658NN TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTPOL NO 73-91
DATE 2 AUG 73 RUN 573
FREQUENCY 2700 TIME 1210
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN-QC -1-
Cherokee 140
0° Roll, -10° Pitch
CALIBRATION REFERENCE LEVEL
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
210°
240°
270°
300°
330°
0°
30
60
90°
120°

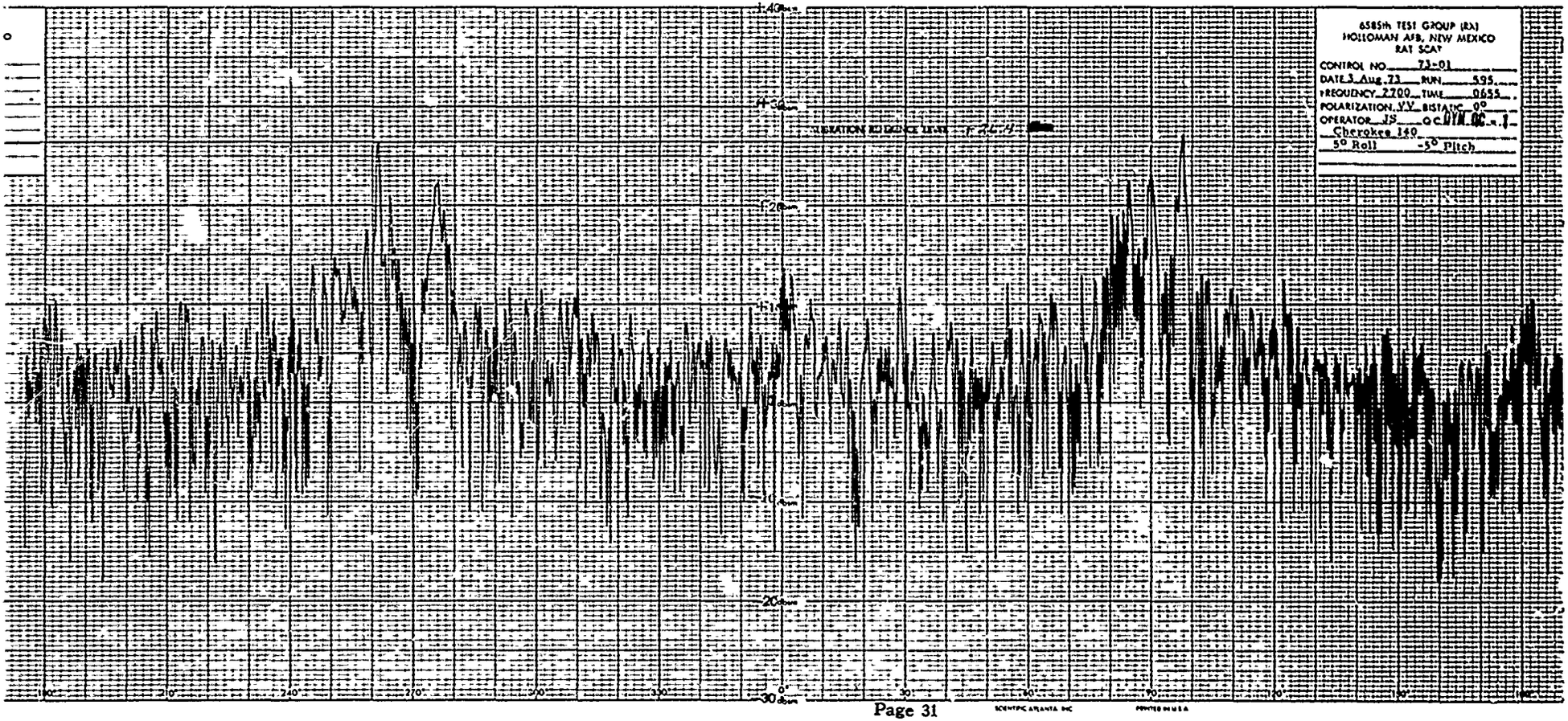

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-91
DATE Aug 73 RUN 560
FREQUENCY 2709 TIME 0700
POLARIZATION V.V. RISTATIC 0°
OPERATOR JS QC-DYN QC-1
Cherokee 140
0° Roll, -5° Pitch
-40 dbsm
-30 dbsm
-20 dbsm
-10 dbsm
-0 dbsm
-20 dbsm
-30 dbsm
0°
30°
60°
90°
120°
150°
180°
210°
240°
270°
300°
330°

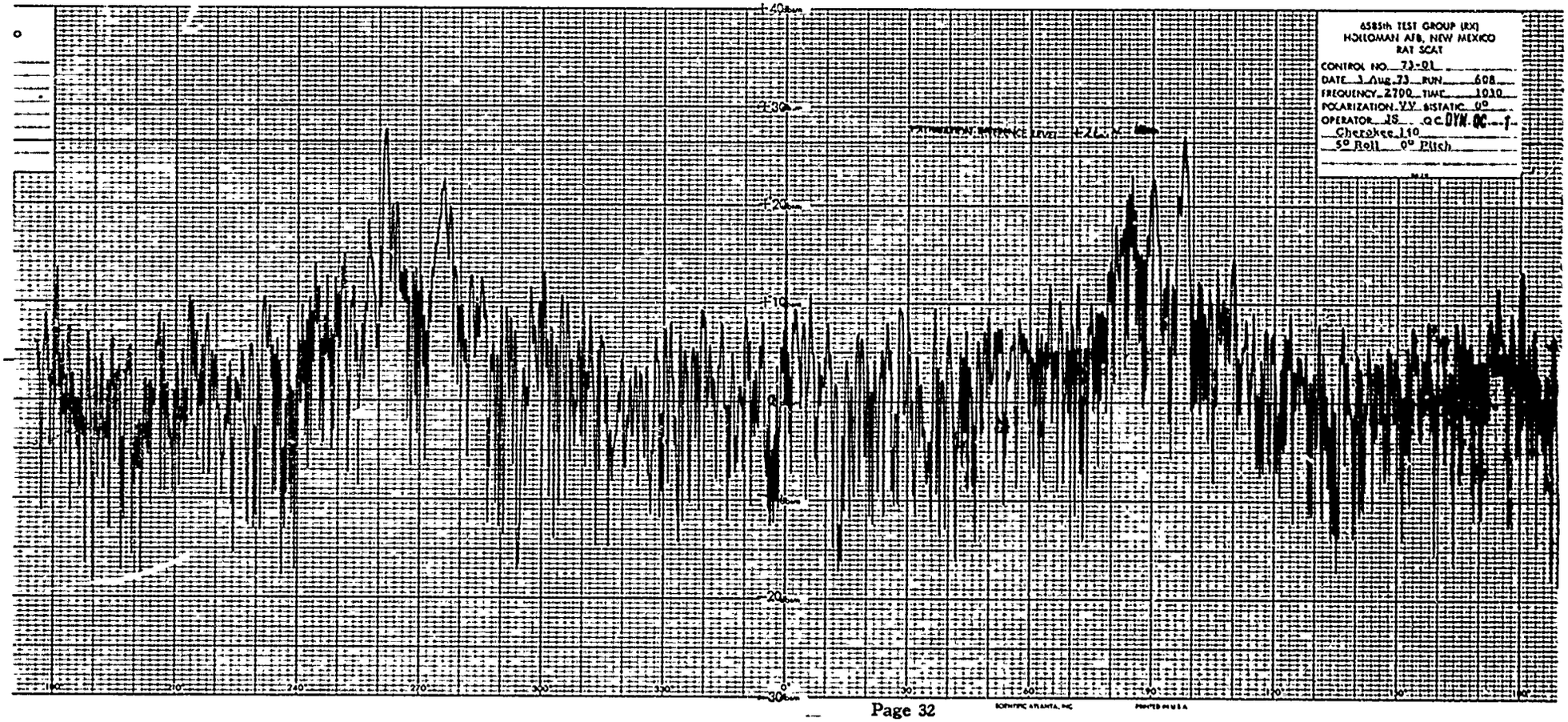

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO. 73-91
DATE 1 Aug 73 RUN 528
FREQUENCY 2700 TIME 0920
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC - J
Cherokee 140
0° Roll, 0° Pitch
-40 dbsm
-30 dbsm
-20 dbsm
-10 dbsm
0 dbsm
10 dbsm
20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

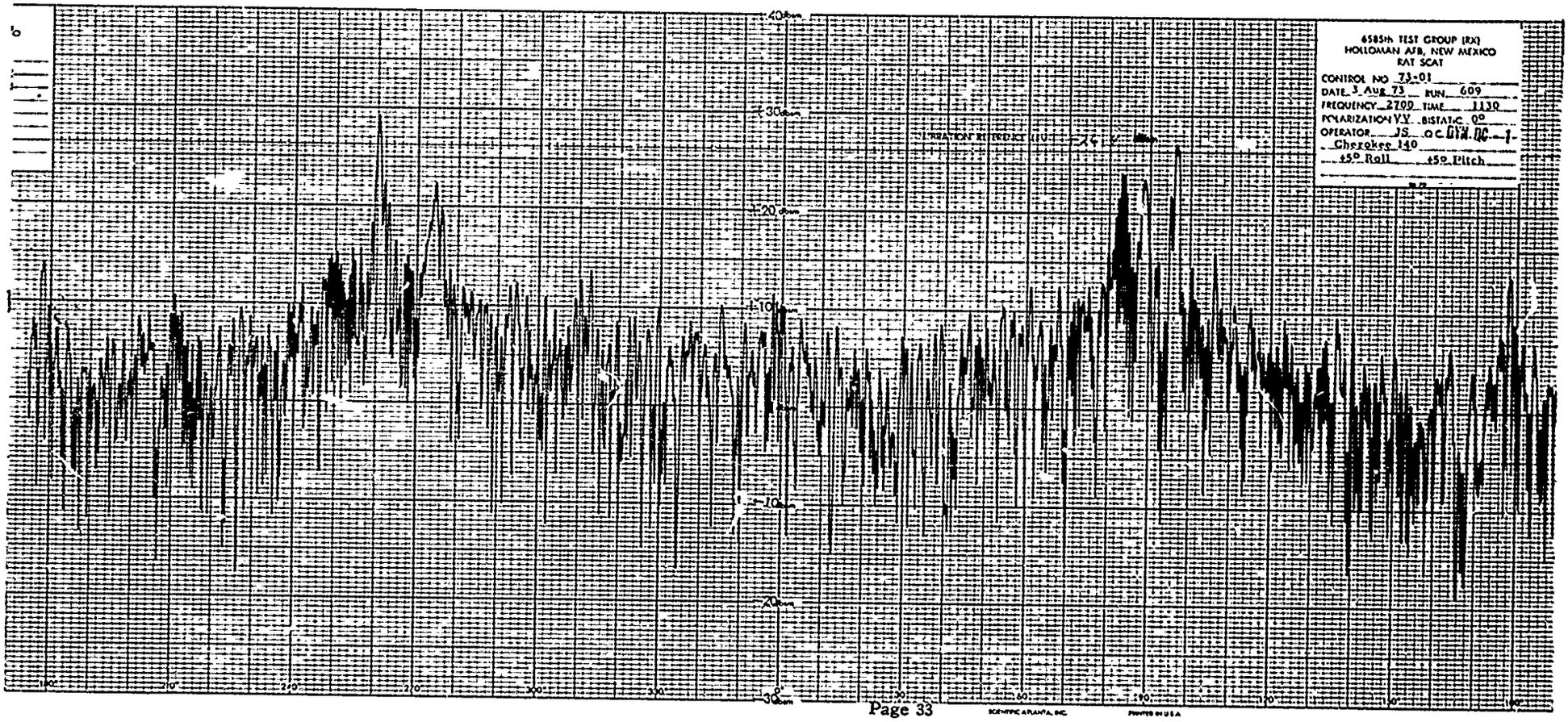

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 1 AUG 73 RUN 530
FREQUENCY 2700 TIME 1120
POLARIZATION V-V BISTATIC 0°
OPERATOR JS OC BTN MC-1
Cherokee 140
0° Roll, 45 Pitch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
210°
240°
270°
300°
330°
0°
30°
60°
90°

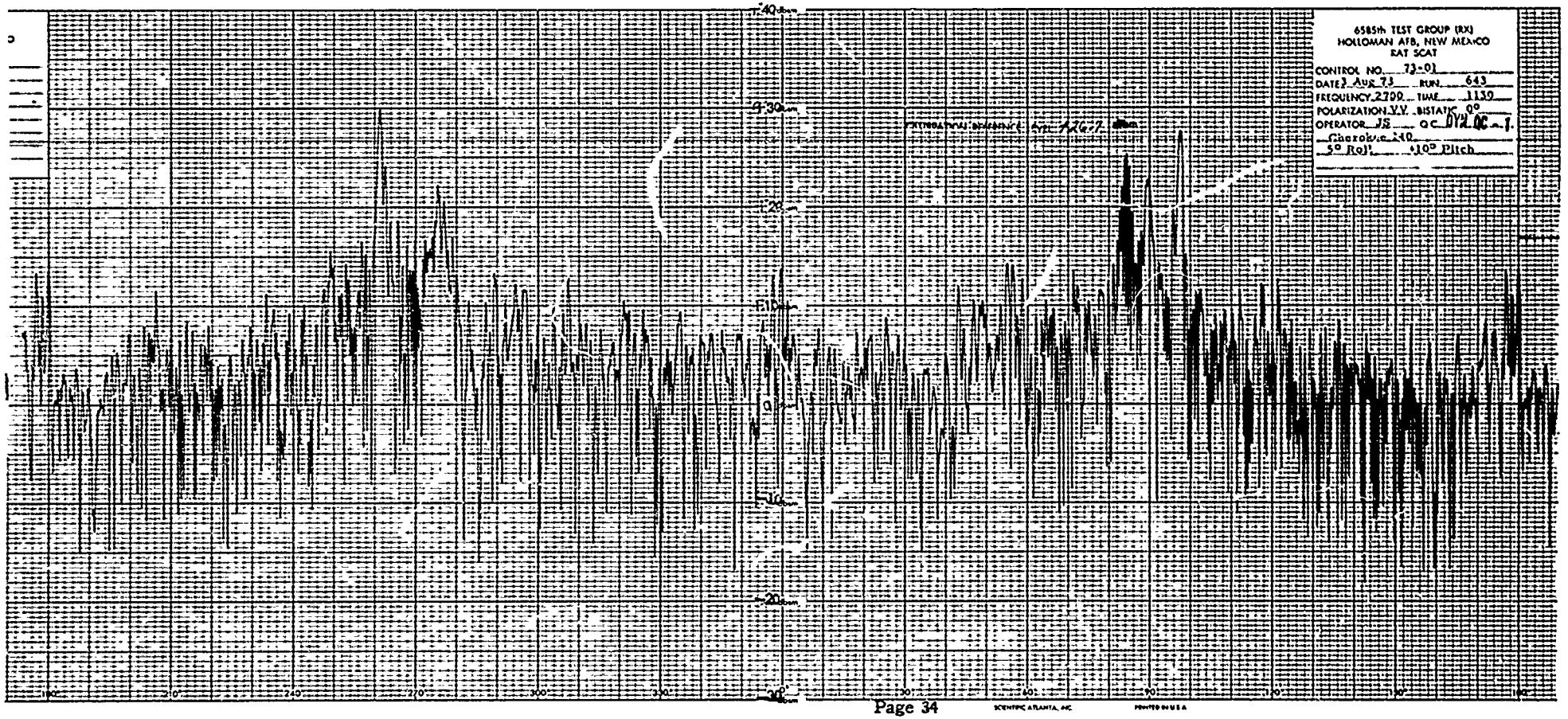

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
PAT SCAT
CONTROL NO. 73-01
DATE LAUG 73 RUN 543
FREQUENCY 2700 TIME 1510
POLARIZATION VV BISTATIC 0
OPERATOR MM QC DYN RC - 1
Cherokee 140
.0° Roll, +10° Pitch
-10 dbsm
-20 dbsm
-30 dbsm
0°
30°
60°
90°
120°
150°
180°
210°
240°
270°
300°
330°


6585th TEST GROUP (RA)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 5 AUG 73 RUN 574
FREQUENCY 2700 TIME 1330
POLARIZATION VV BISTATIC 0°
OPERATOR JJ QC DYN-BC--1-
Cherokee 140
5° Roll -10° Pitch
-40 dbsm
-30 dbsm
-20 dbsm
-10 dbsm
-0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
0°
30
60
90
120
150
180
210°
240°
270°
300°
330°


6585th TEST GROUP (RA)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73 RUN 595
FREQUENCY 2700 TIME 0655
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC
Cherokee 140
5° Roll -5° Pitch
-40
-30
-20
-10
0
10
20
30
210°
240°
270°
300°
330°
30°
60°
90°
120°
150°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-91
DATE 3 Aug 73 RUN 608
FREQUENCY 2700 TIME 1030
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN. QC
Cherokee 140
5° Roll 0° Pitch
+40dBsm
+30dBsm
+20dBsm
+10dBsm
0dBsm
-10dBsm
-20dBsm
-30dBsm
210°
240°
270°
300°
330°
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73 RUN 609
FREQUENCY 2709 TIME 1139
POLARIZATION V.V. BISTATIC 0°
OPERATOR JS OC DIM OC-1
Cherokee 140
±5° Roll ±5° Pitch
+40dbm
+30dbm
+20dbm
+10dbm
-10dbm
-20dbm
-30dbm



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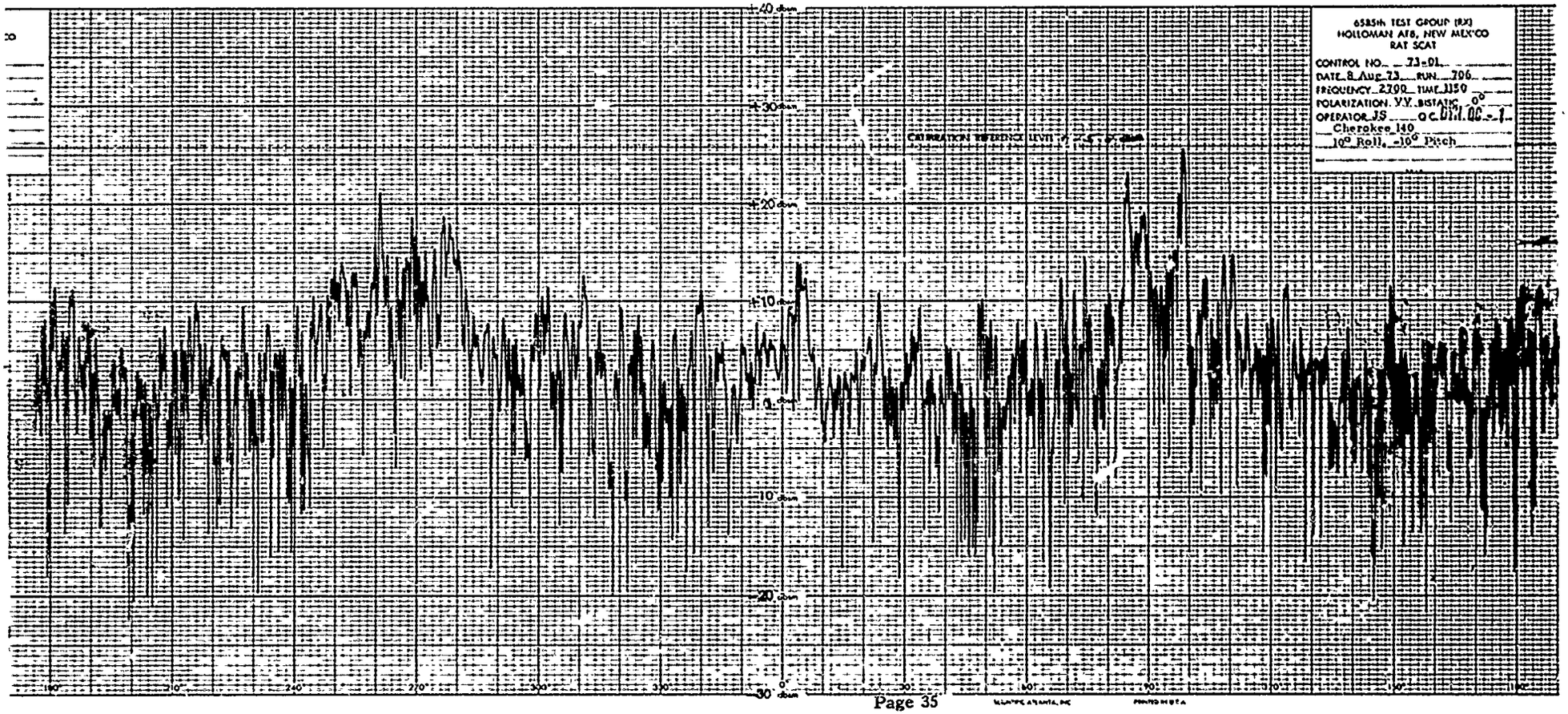
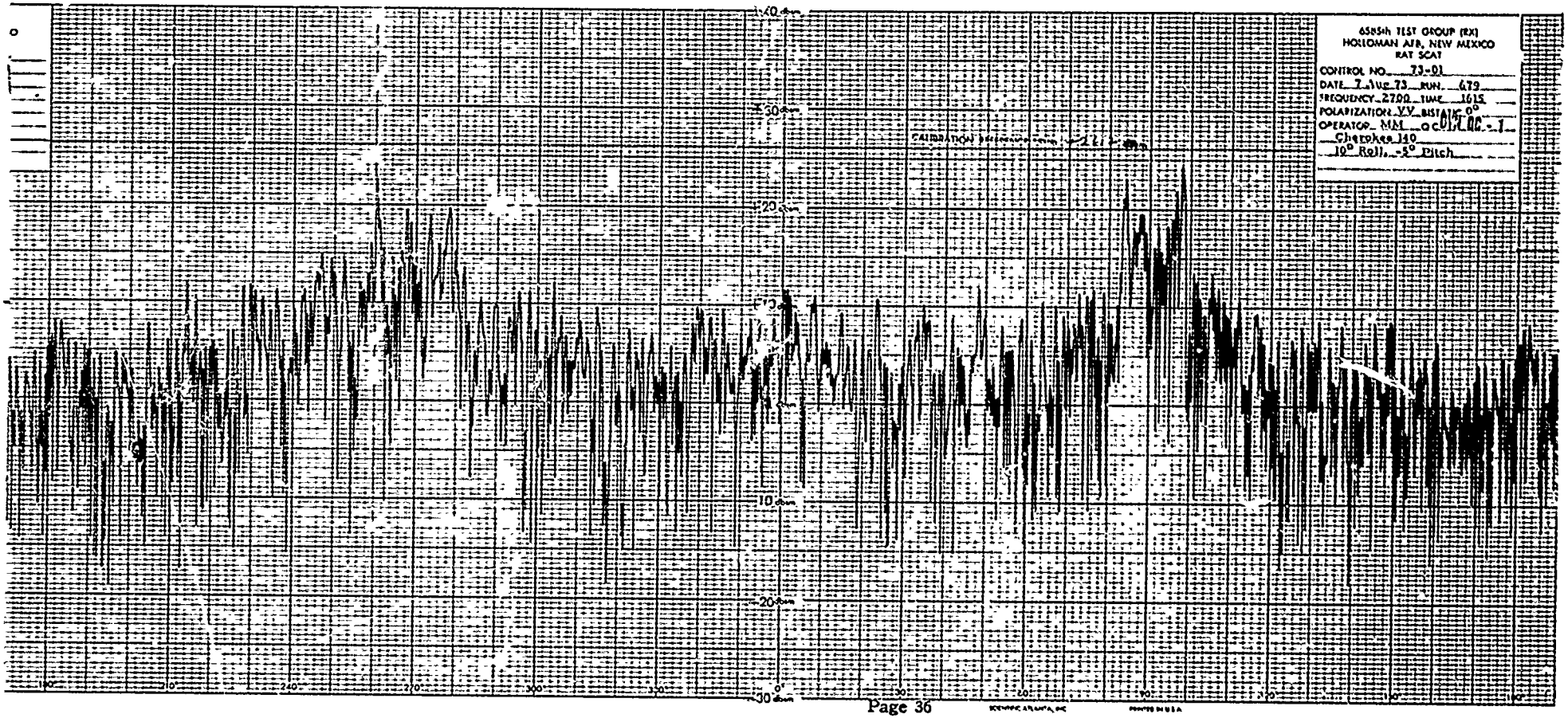
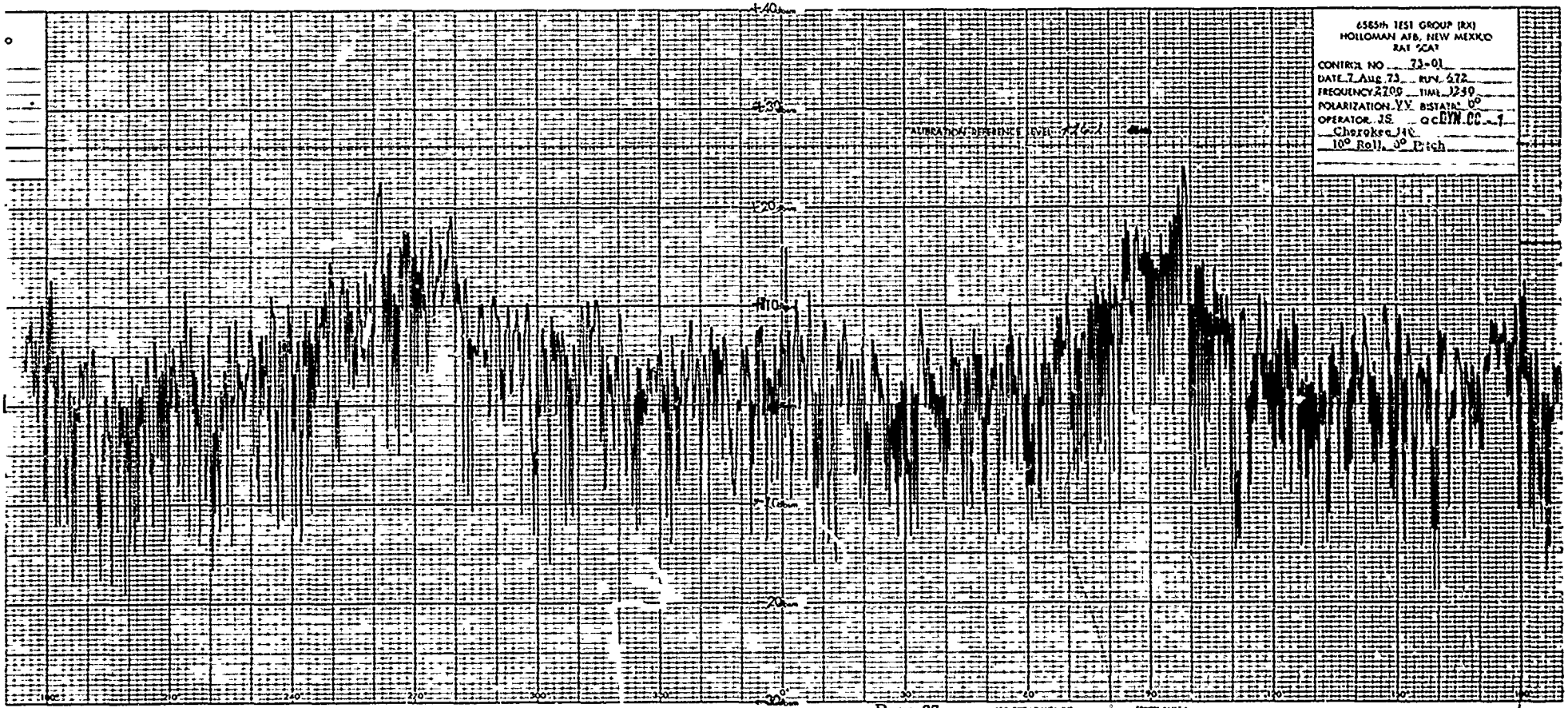
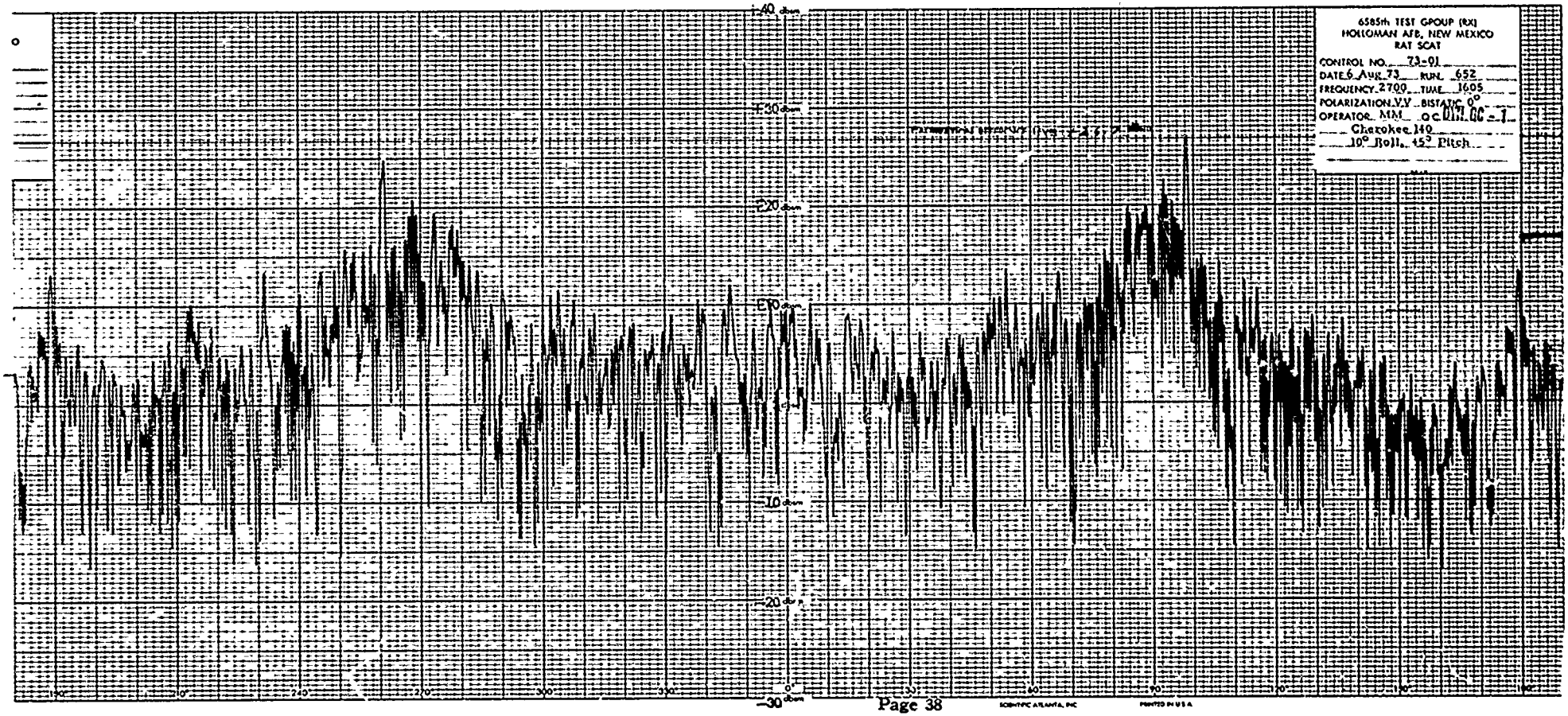

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 8 Aug 73 RUN 706
FREQUENCY 2200 TIME 1150
POLARIZATION V.V. BISTATIC 0°
OPERATOR JS OC DTH OC-1
Cherokee 140
10° Roll, -10° Pitch
CALIBRATION REFERENCE LEVEL
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
0°
30°
60°
90°
120°
150°
180°
210°
240°
270°
300°
330°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 7 Aug 73 RUN 479
FREQUENCY 2700 TIME 1615
POLARIZATION VV BISTATIC 0°
OPERATOR MM OCULAC-1
Cherokee 140
10° Roll, -5° Pitch
40
30
20
10
-20
-30°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT "CA"
CONTROL NO. 73-01
DATE 7 Aug 73 RUN 672
FREQUENCY 2709 TIME 1230
POLARIZATION VV BISTATIC 0°
OPERATOR JS CYN.CC 1
Cherokee J10
10° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL
+40
+30
+20
+10
-10
-20
-30
180°
210°
240°
270°
300°
330°
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 6 Aug 73 RUN 652
FREQUENCY 2700 TIME 1605
POLARIZATION V,V BISTATIC 0°
OPERATOR MM QC QC - 1
Cherokee 140
10° Roll, 45° Pitch
-40 dbsm
-30 dbsm
-20 dbsm
-10 dbsm
0 dbsm
10 dbsm
20 dbsm
30 dbsm
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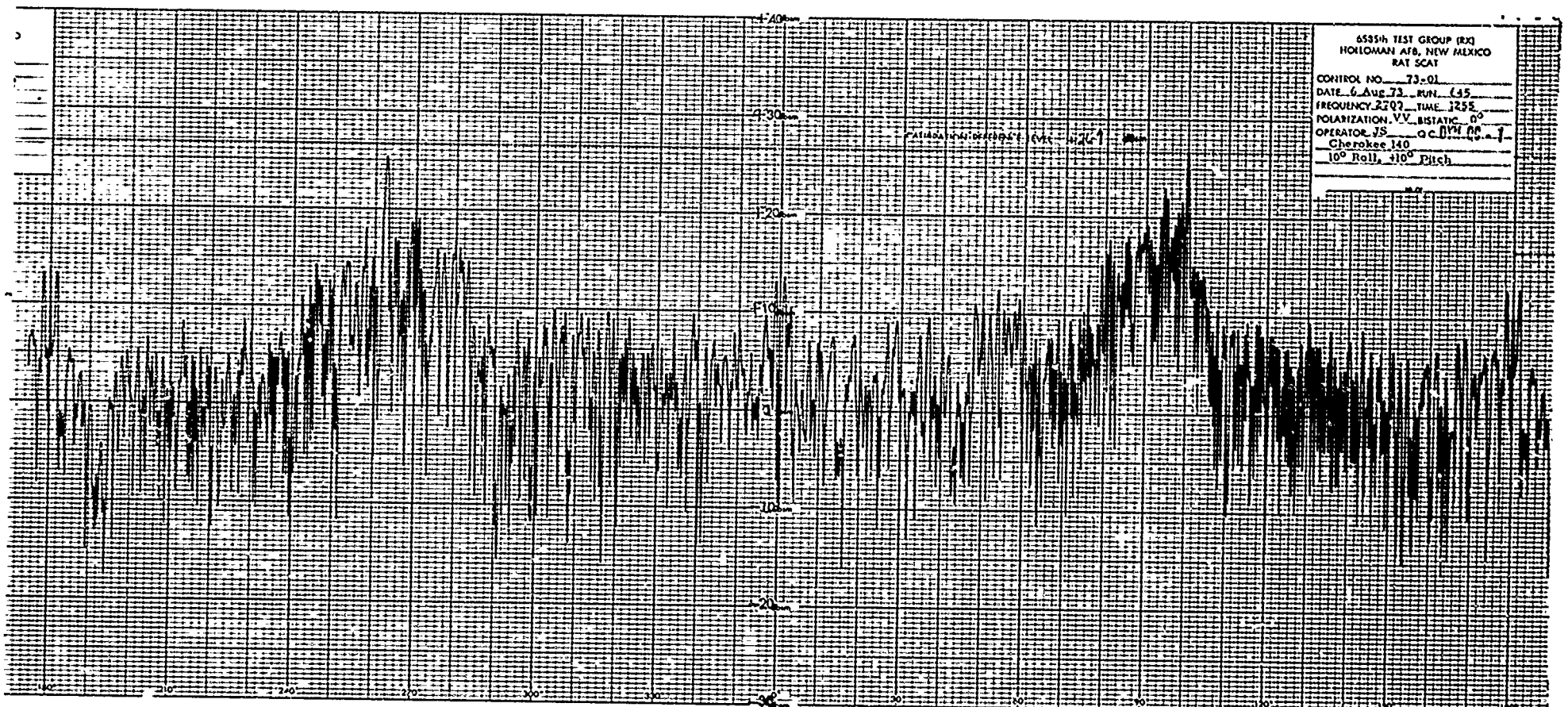
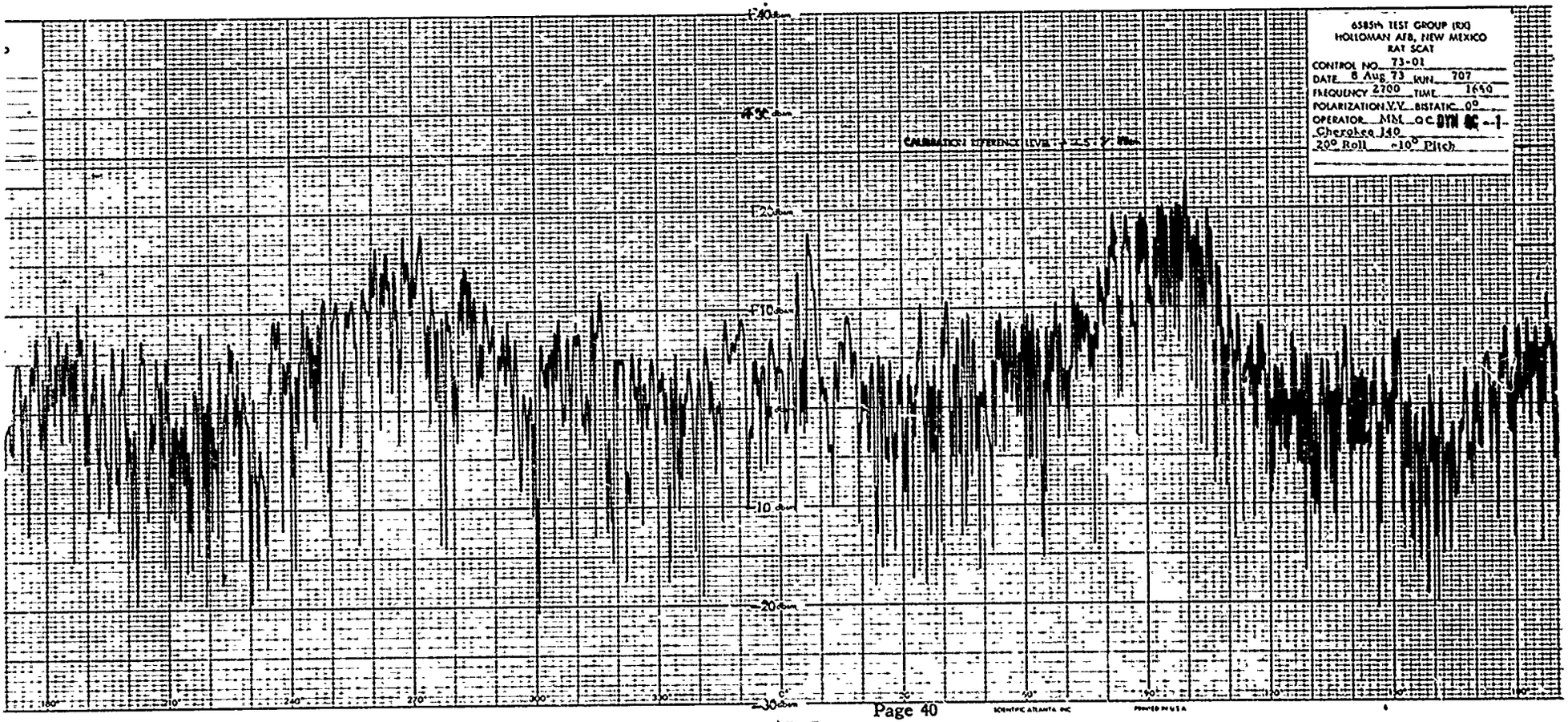

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 6 Aug 73 RUN 645
FREQUENCY 2707 TIME 1255
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DVH CC
Cherokee 140
10° Roll, +10° Pitch
-40dbsm
-30dbsm
-20dbsm
-10dbsm
180°
210°
240°
270°
300°
330°
360°
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 8 Aug 73 RUN 707
FREQUENCY 2700 TIME 1650
POLARIZATION V.V. BISTATIC 0°
OPERATOR MSL QC DYN AC --1--
Cherokee 140
20° Roll -10° Pitch
CALIBRATION REFERENCE LEVEL = -5.5 V. 40db
-40 dbsm
-25 dbsm
-10 dbsm
10 dbsm
20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
90°
150°
180°
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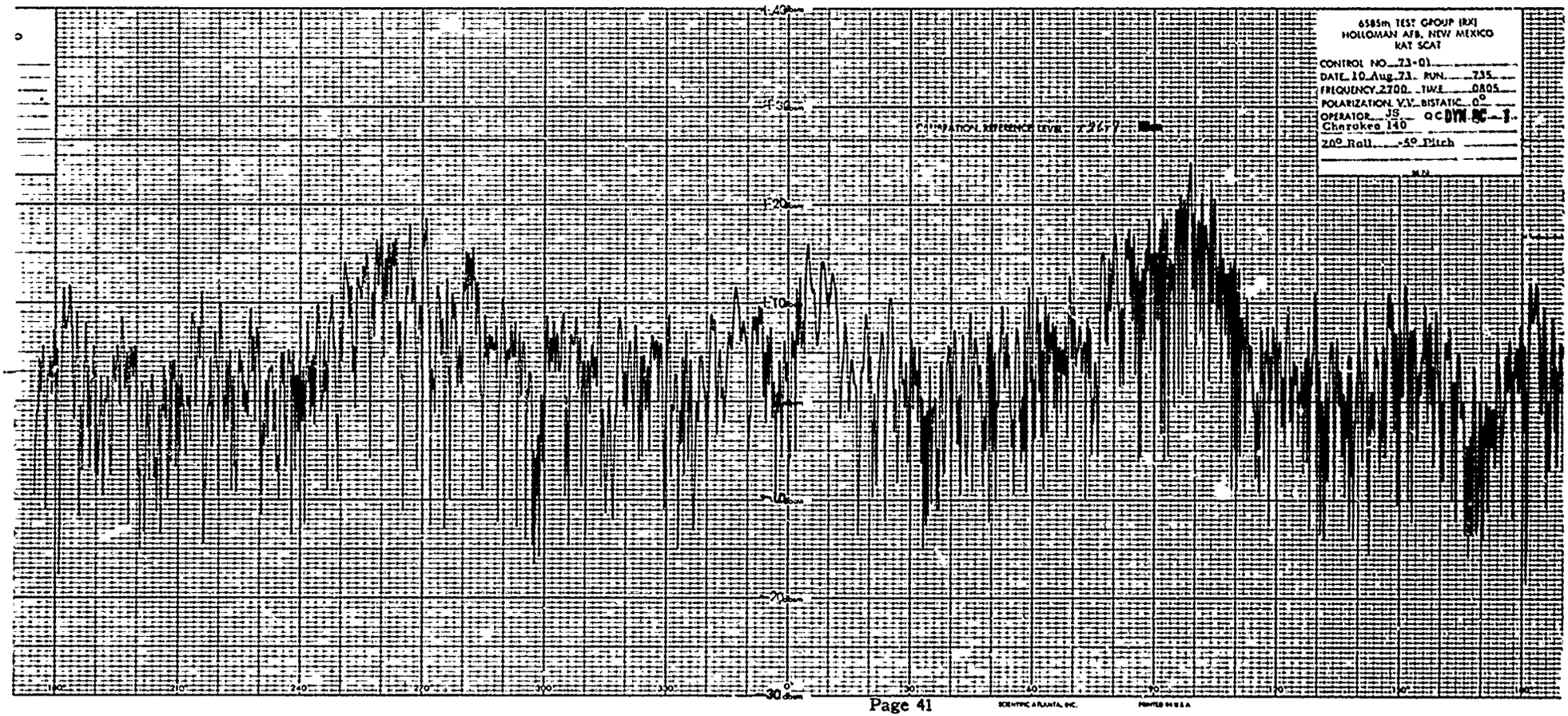

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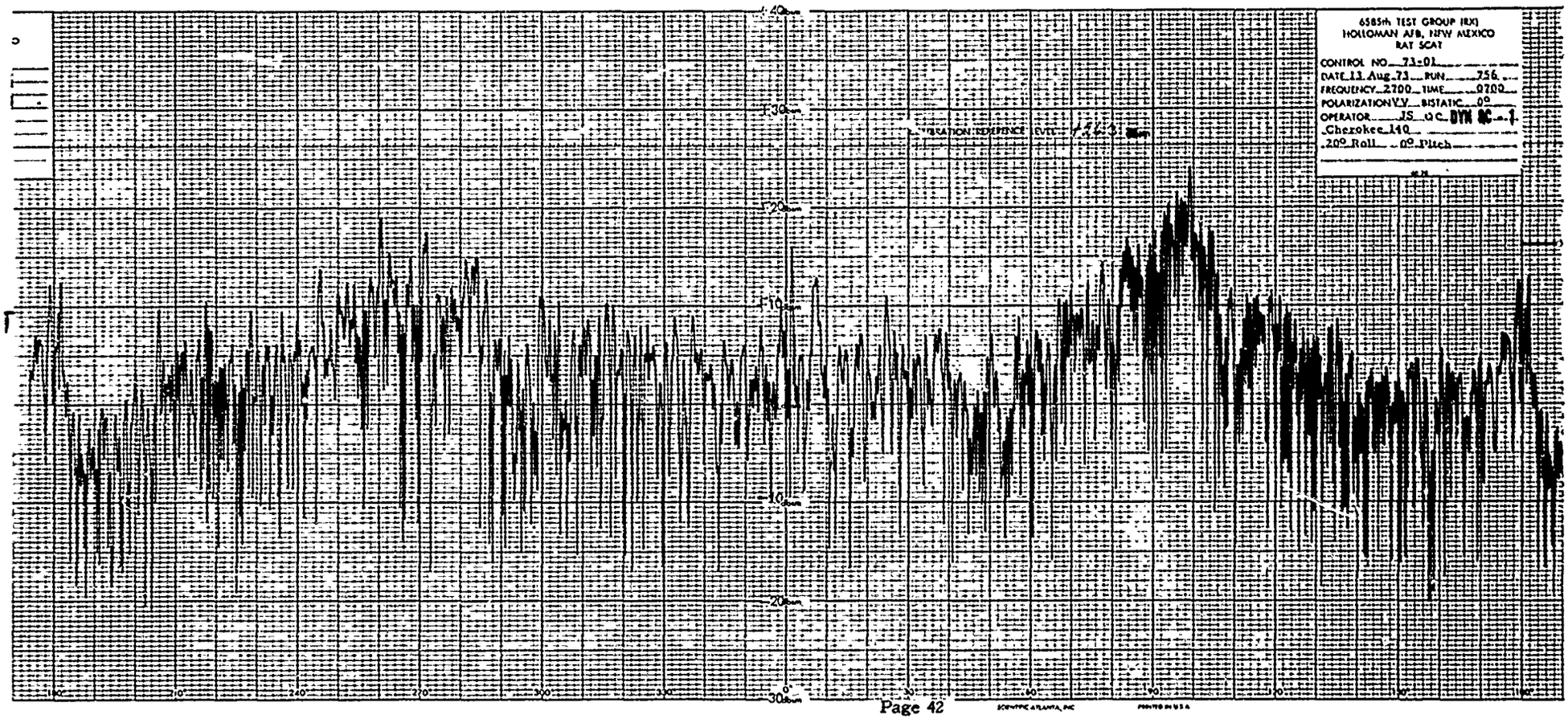
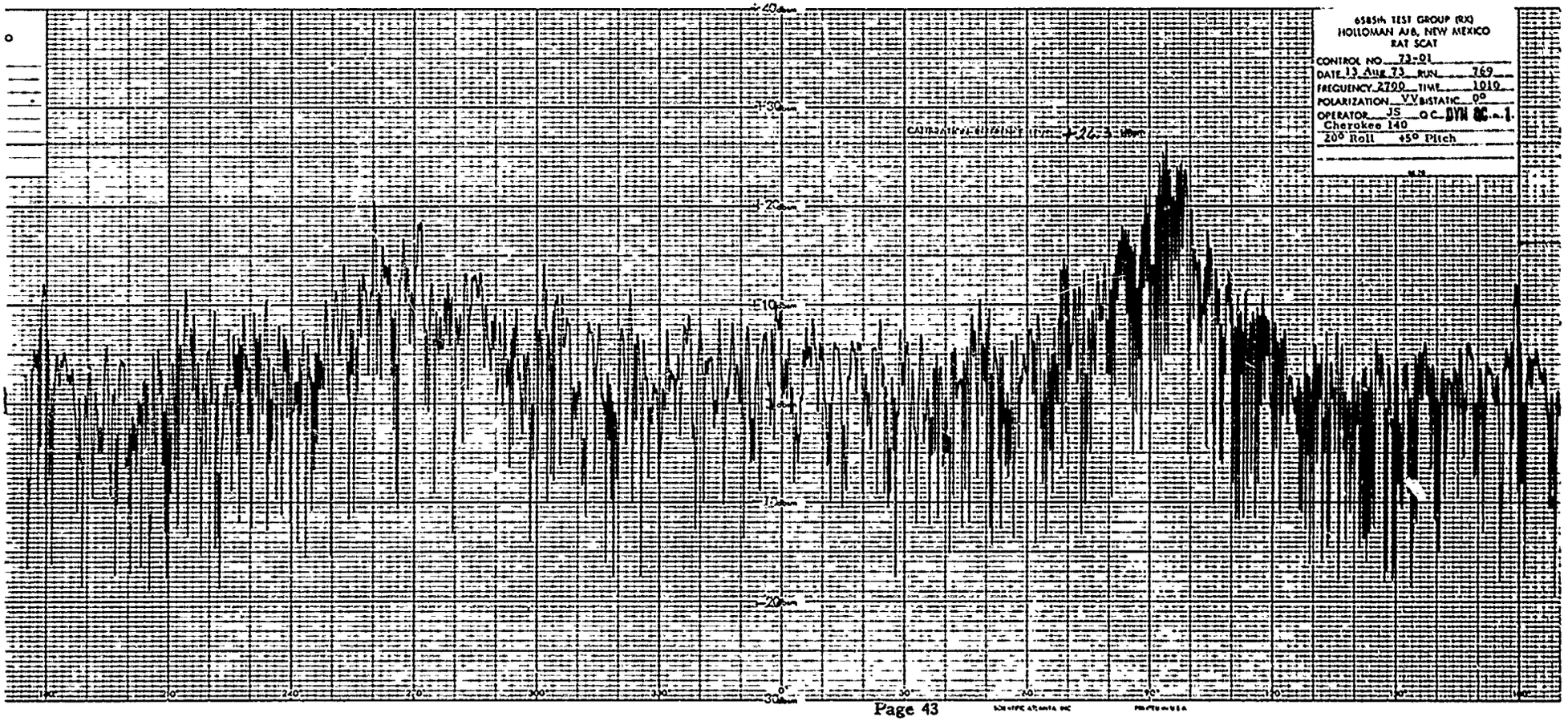
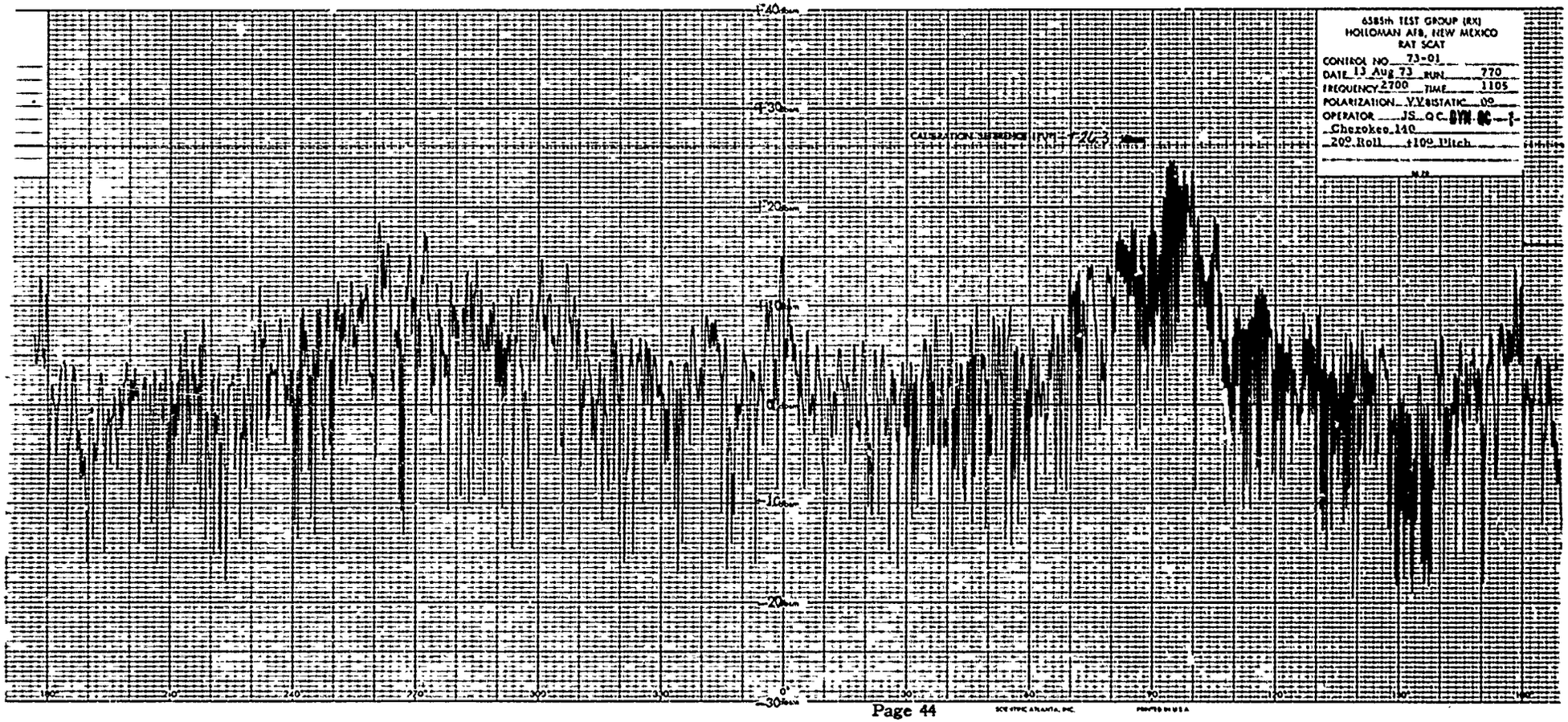
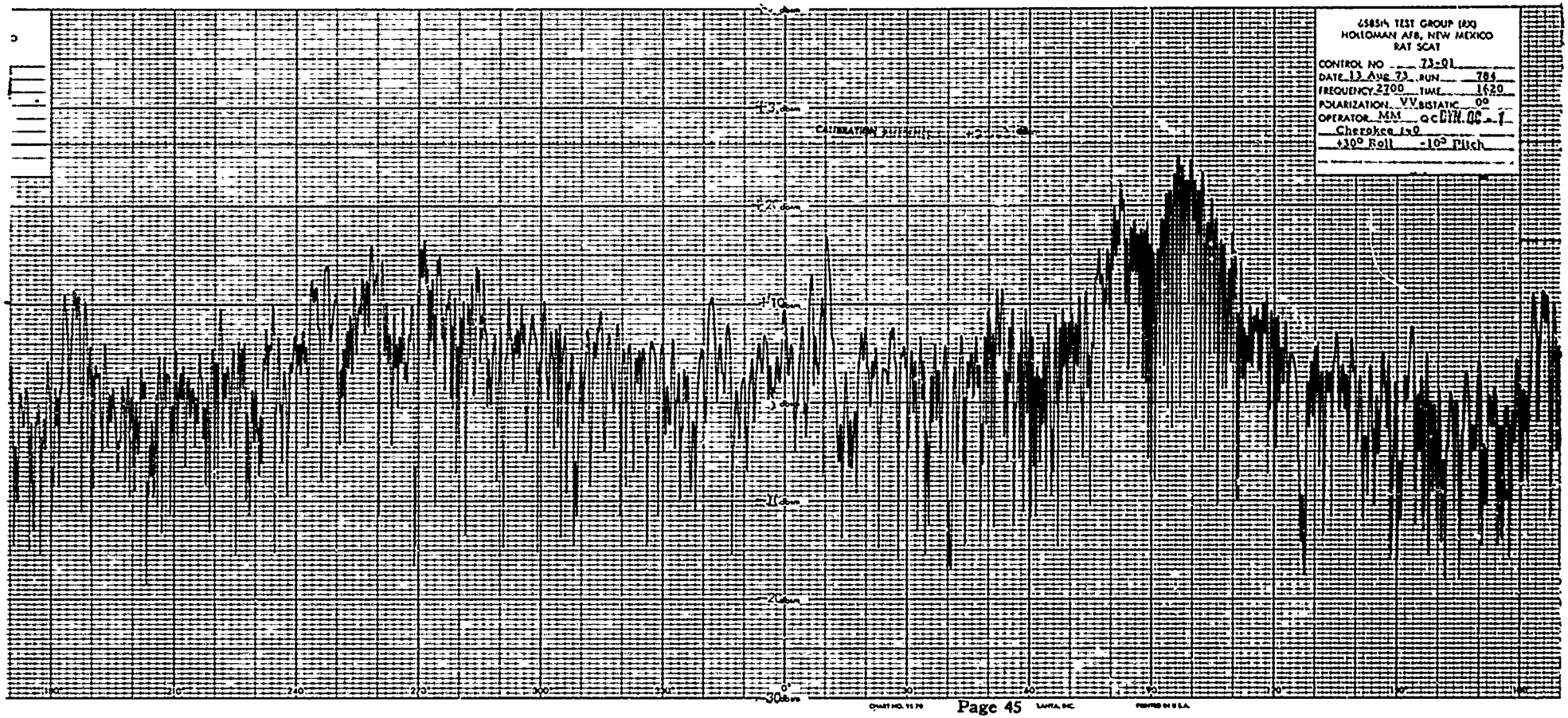
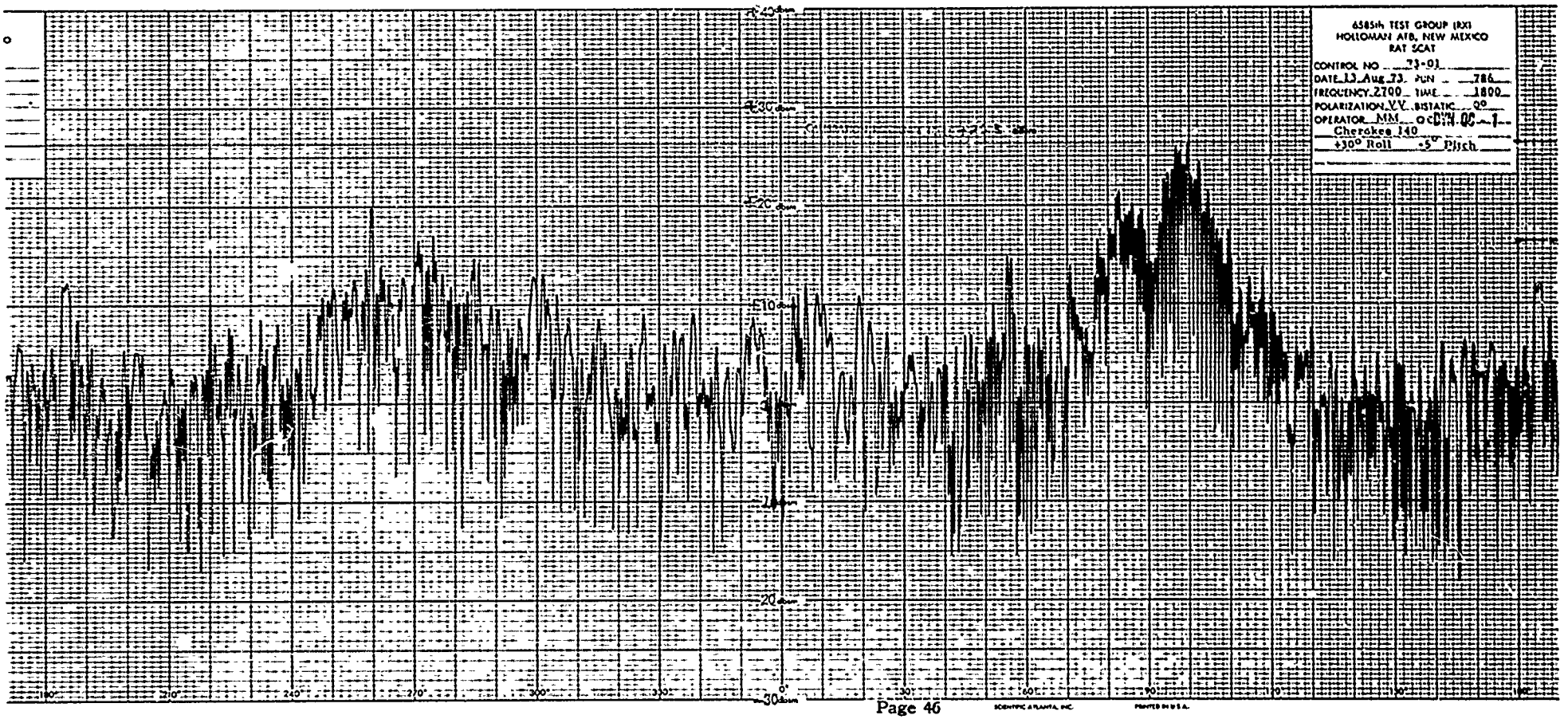
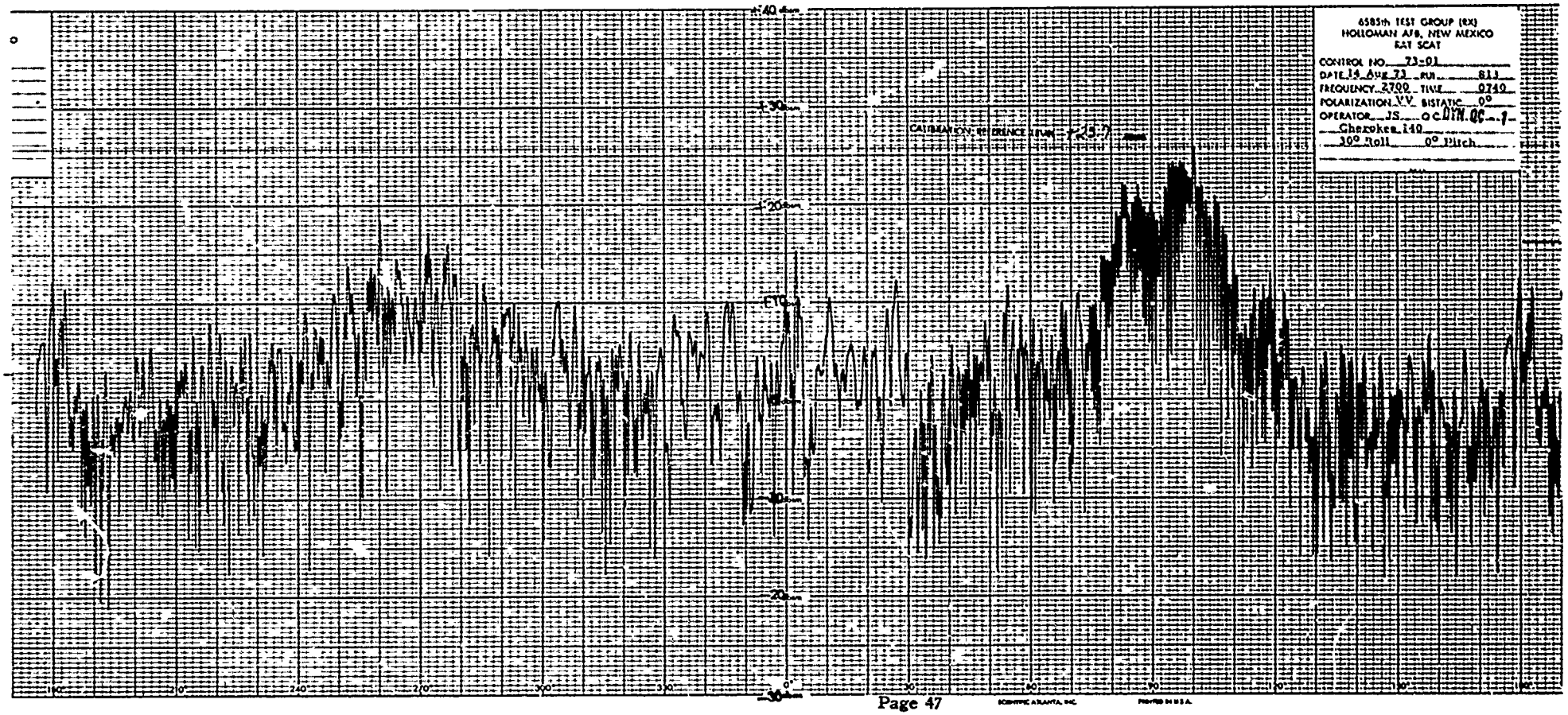

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 13 Aug 73 RUN 756
FREQUENCY 2700 TIME 0700
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN RC-1
Cherokee 140
20° Roll 0° Pitch
-40
-30
-20
-10
0
10
20
30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 13 Aug 73 RUN 769
FREQUENCY 2700 TIME 1019
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
20° Roll +5° Pitch
+40
+30
+20
+10
0
-10
-20
-30
0°
30°
60°
90°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 770
FREQUENCY 2700 TIME 1105
POLARIZATION V.V BISTATIC 09
OPERATOR JS QC
Cherokee 140
20° Roll ±10° Pitch
+40dBsm
+30dBsm
+20dBsm
+10dBsm
0dBsm
-10dBsm
-20dBsm
-30dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 784
FREQUENCY 2700 TIME 1620
POLARIZATION VV BISTATIC 00
OPERATOR MM QC CTH QC - 1
Cherokee 150
+30° Roll -10° Pitch
CALIBRATION PUTSCHE
-13 dbsm
-20 dbsm
-10 dbsm
-3 dbsm
-11 dbsm
-2 dbsm
-30 dbsm
180
210
240
270
300
330
0°
30
60
90
120
150


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 786
FREQUENCY 2700 TIME 1800
POLARIZATION VV BISTATIC 0°
OPERATOR MM OCDN 00-1
Cherokee 140
+30° Roll -5° Pitch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°



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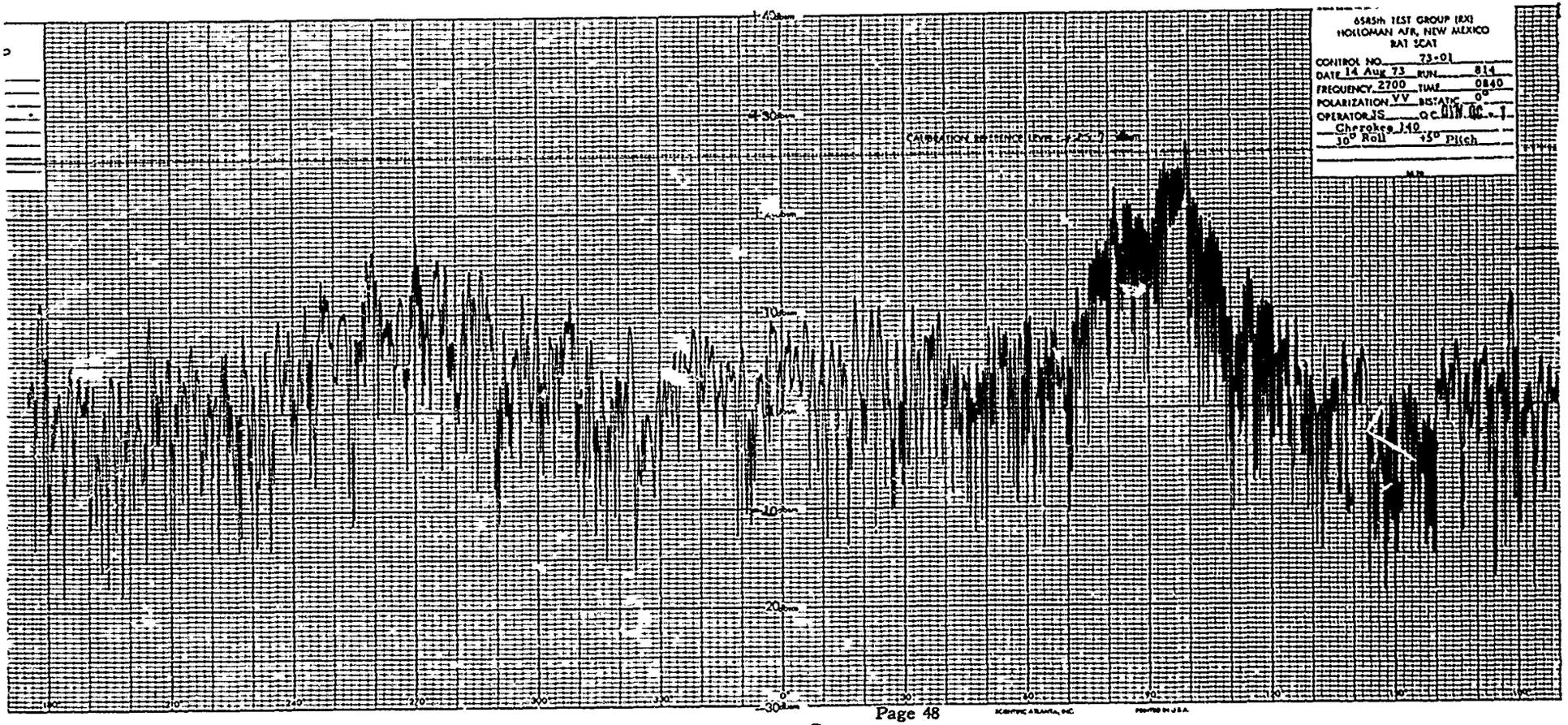
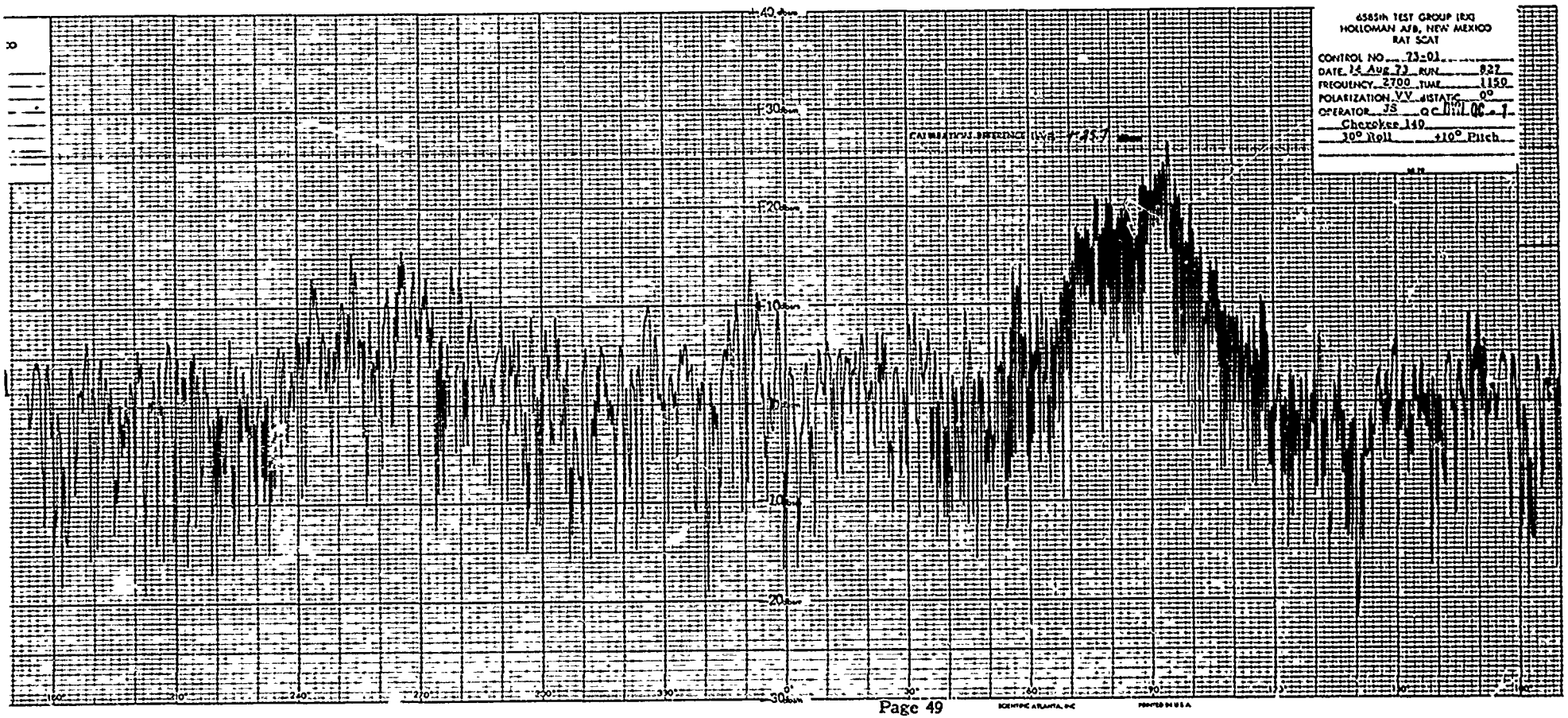
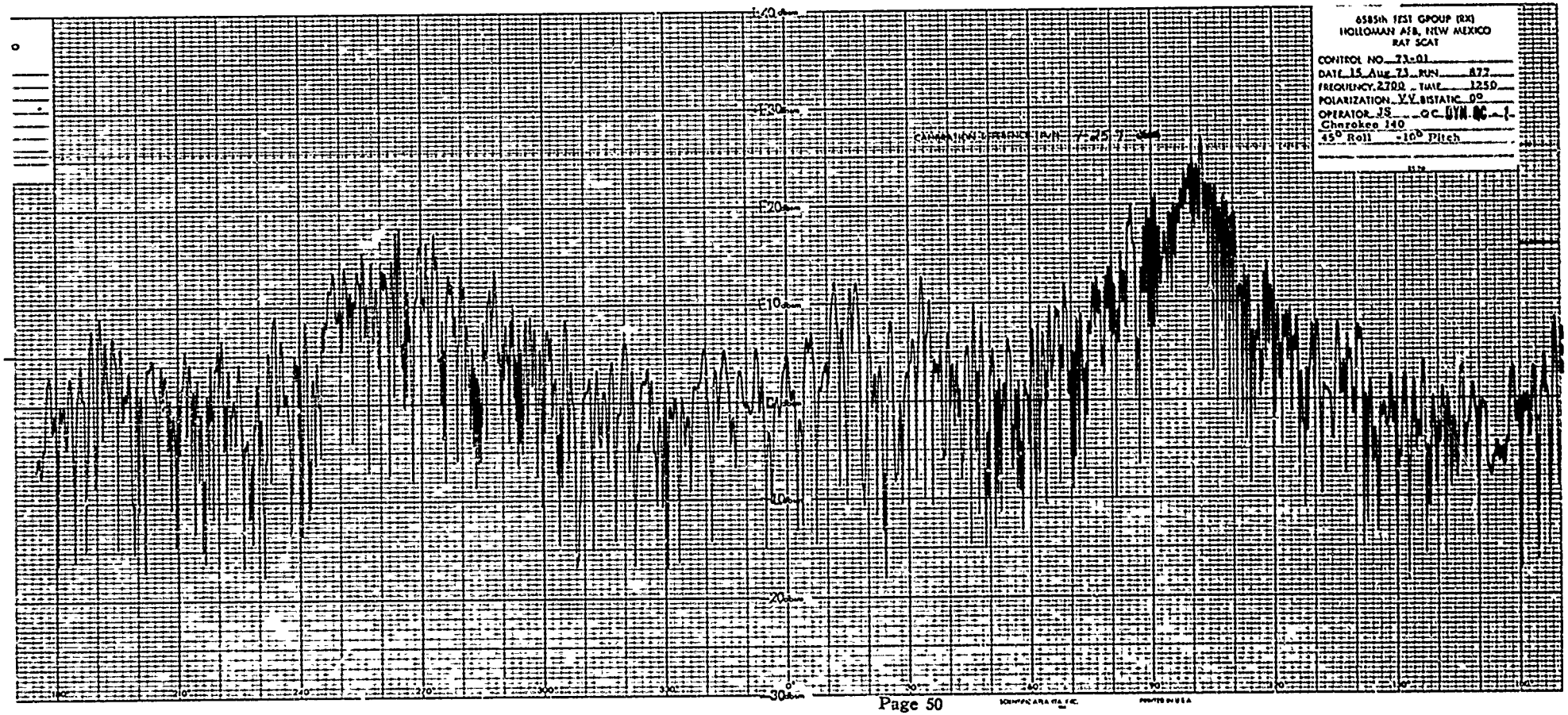
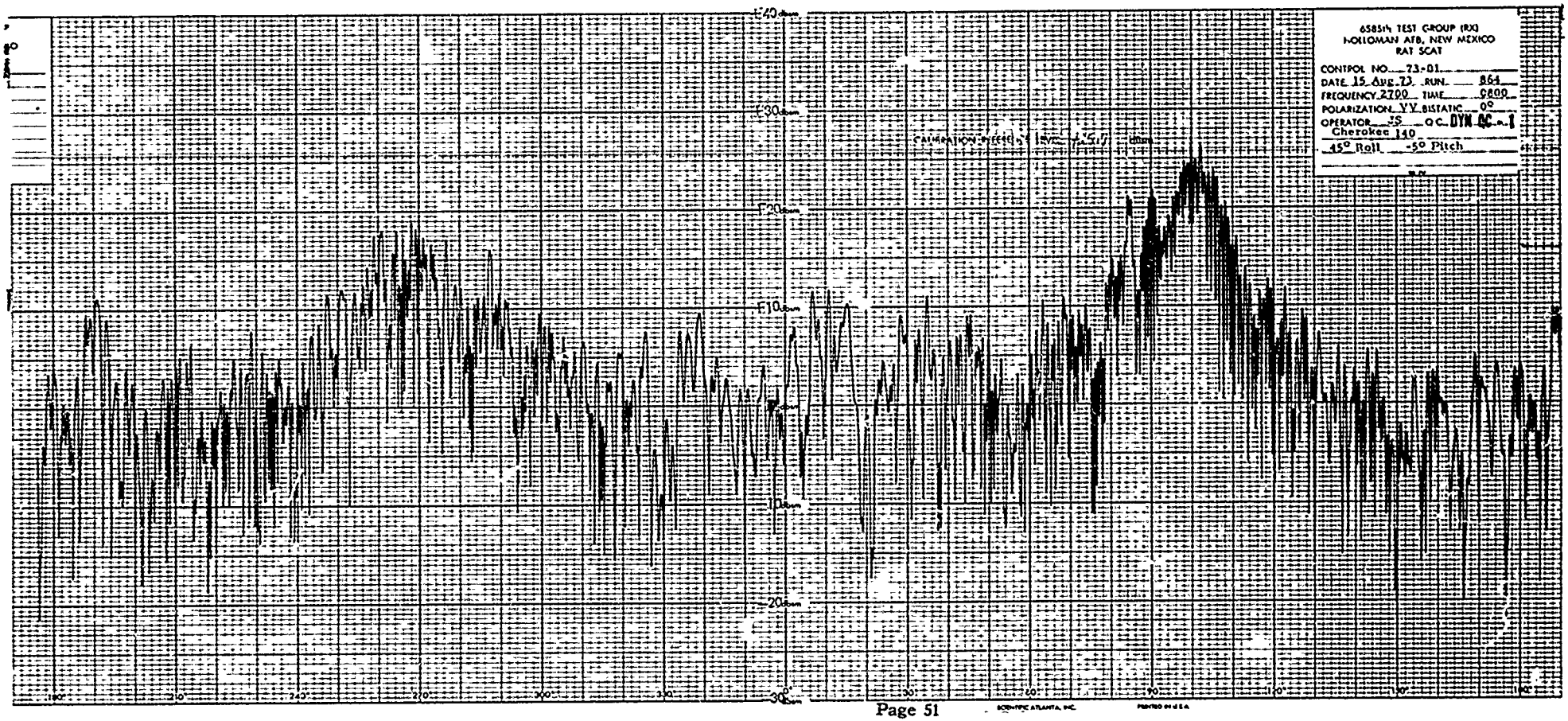
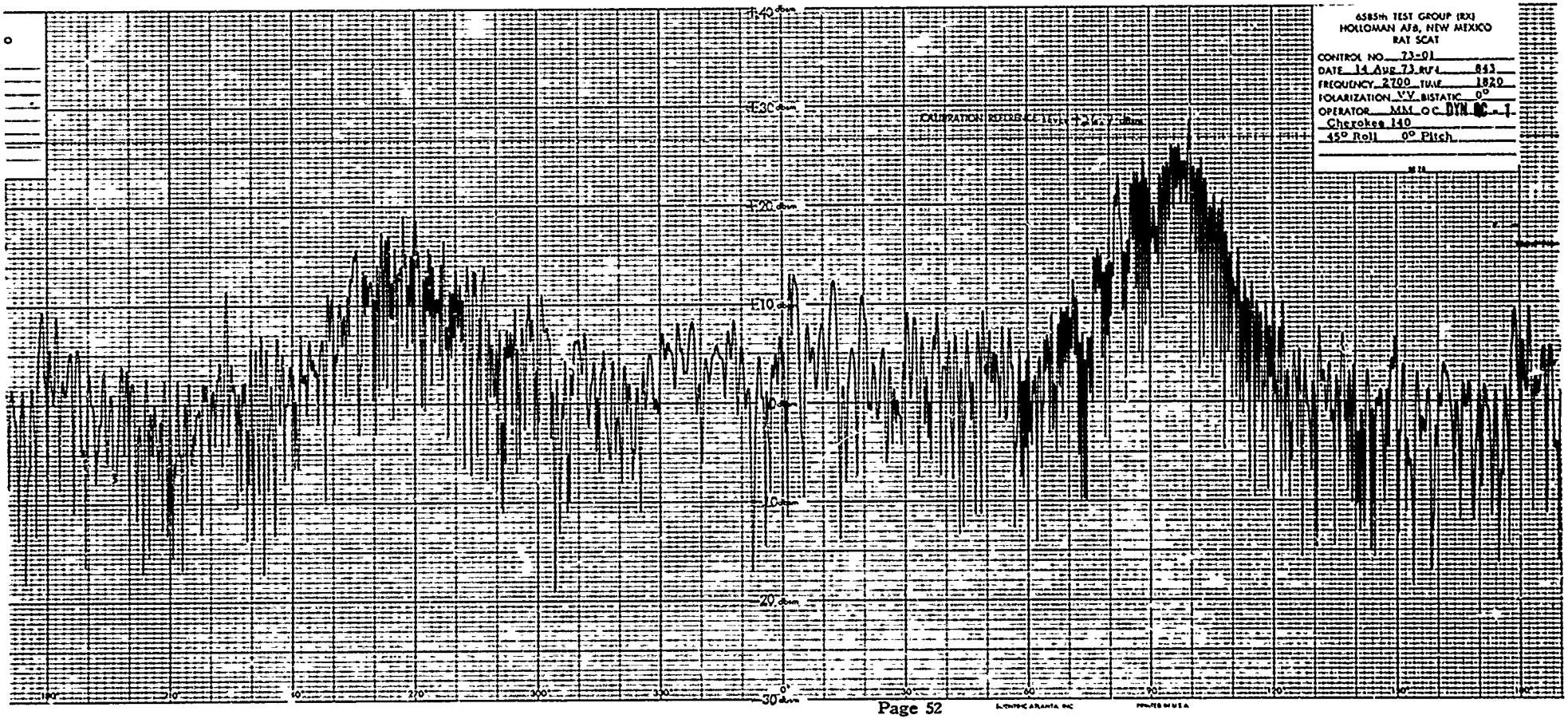
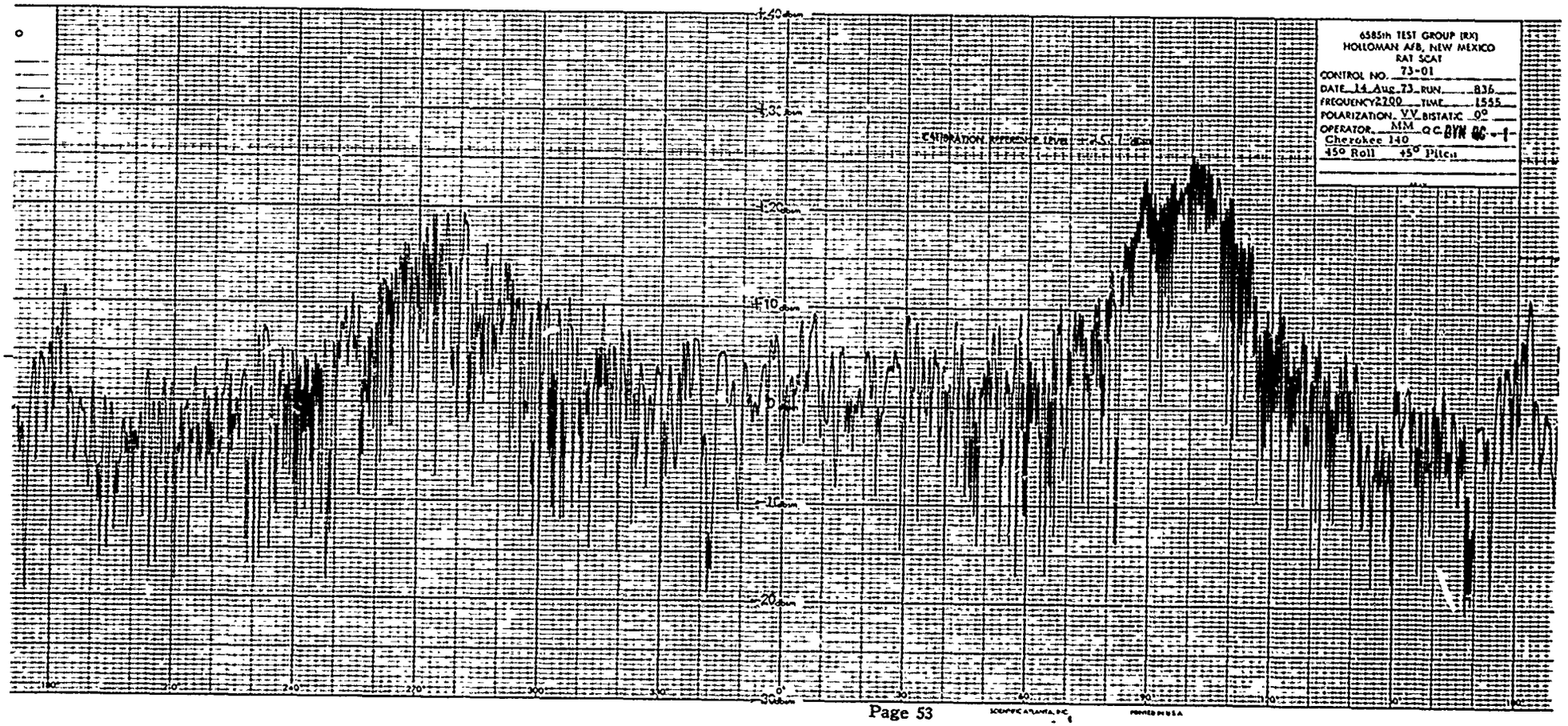

6545th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 14 Aug 73 RUN 814
FREQUENCY 2700 TIME 0840
POLARIZATION VV BISTATIC 0°
OPERATOR JS OC DIW OC - 1
Cherokee 140
30° Roll 15° Pitch
CALIBRATION RESILENCE LEVEL
40dBsm
30dBsm
20dBsm
10dBsm
0dBsm
-10dBsm
-20dBsm
-30dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

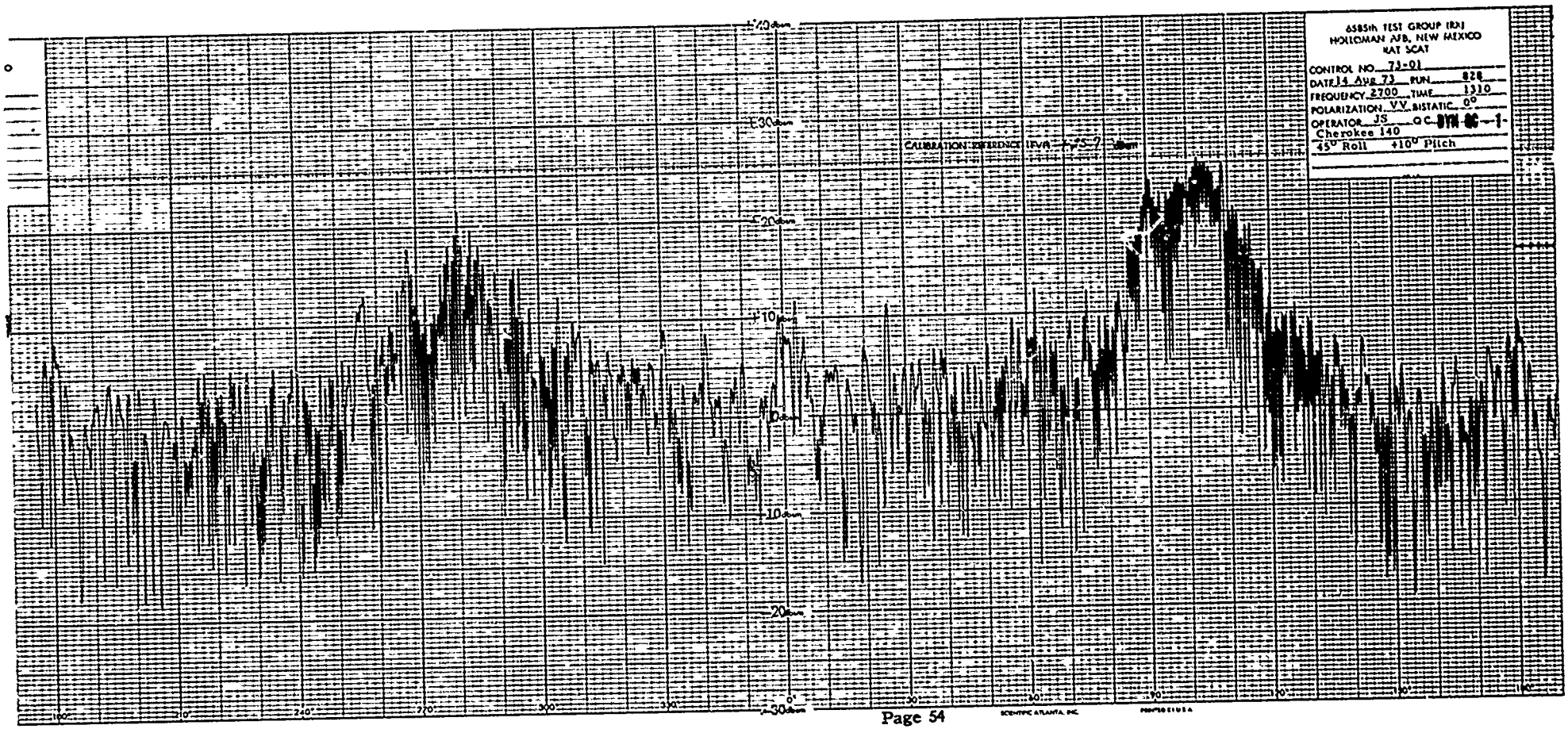

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 14 Aug 73 RUN 027
FREQUENCY 2700 TIME 1150
POLARIZATION VV AISTATIC 0°
OPERATOR JS
Cherokee 140
30° Roll +10° Pitch
CALIBRATION REFERENCE LVS
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 877
FREQUENCY 2700 TIME 1250
POLARIZATION V-V BISTATIC 0°
OPERATOR JS GC DYN-RC-1
Cherokee 140
45° Roll -10° Pitch
CALIBRATION REFERENCE (RR) 7-25-7
-30dBsm
-20dBsm
-10dBsm
0dBsm
10dBsm
20dBsm
30dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 15 AUG 73 RUN 864
FREQUENCY 2700 TIME 0800
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
45° Roll -5° Pitch
-40dbsm
-30dbsm
-20dbsm
-10dbsm
0dbsm
10dbsm
20dbsm
30dbsm


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 14 AUG 73 RUN 843
FREQUENCY 2700 TIME 1820
POLARIZATION VV BISTATIC 0°
OPERATOR MAJ O C DTN NC - 1
Cherokee 140
45° Roll 0° Pitch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 14 Aug 73 RUN 836
FREQUENCY 2200 TIME 1555
POLARIZATION VV BISTATIC 0°
OPERATOR MM QC BYN QC-1-
Cherokee 140
45° Roll 45° Pitch
CALIBRATION REFERENCE LEVEL
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30
60
90
120
150°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 14 Apr 73 RUN 828
FREQUENCY 2700 TIME 1310
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN-BC--1-
Cherokee 140
45° Roll +10° Pitch
CALIBRATION REFERENCE LEVEL -45.7 dBsm
+40dBsm
+30dBsm
+20dBsm
+10dBsm
0dBsm
-10dBsm
-20dBsm
-30dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
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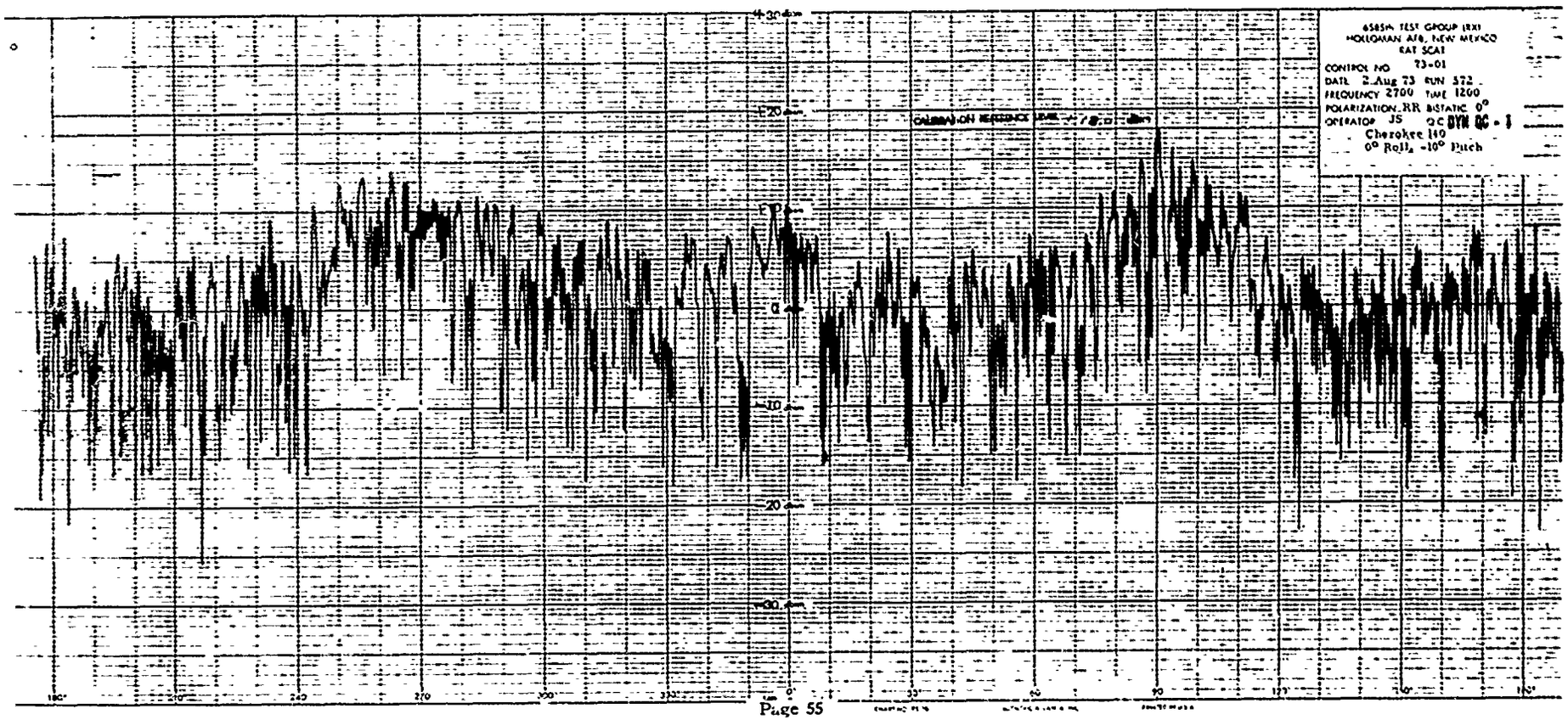
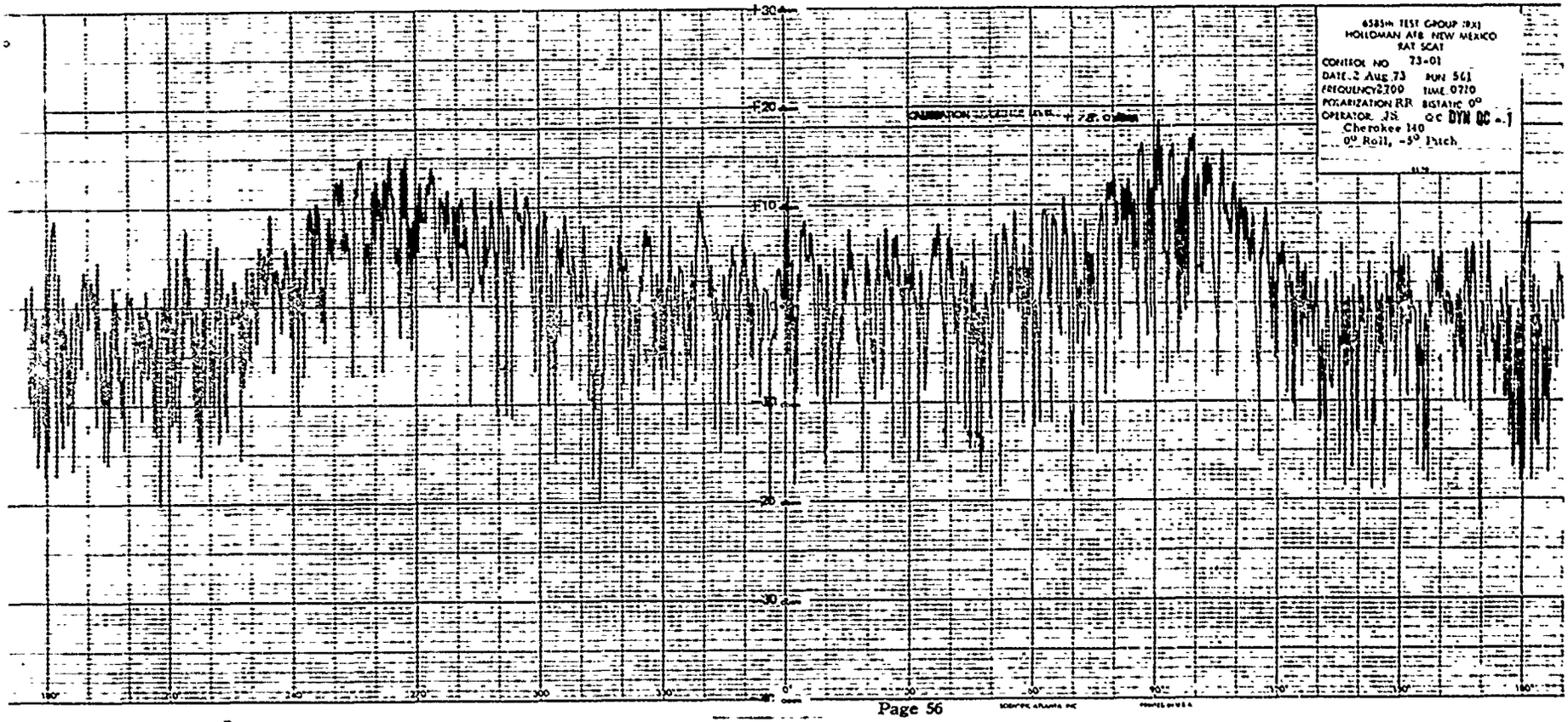
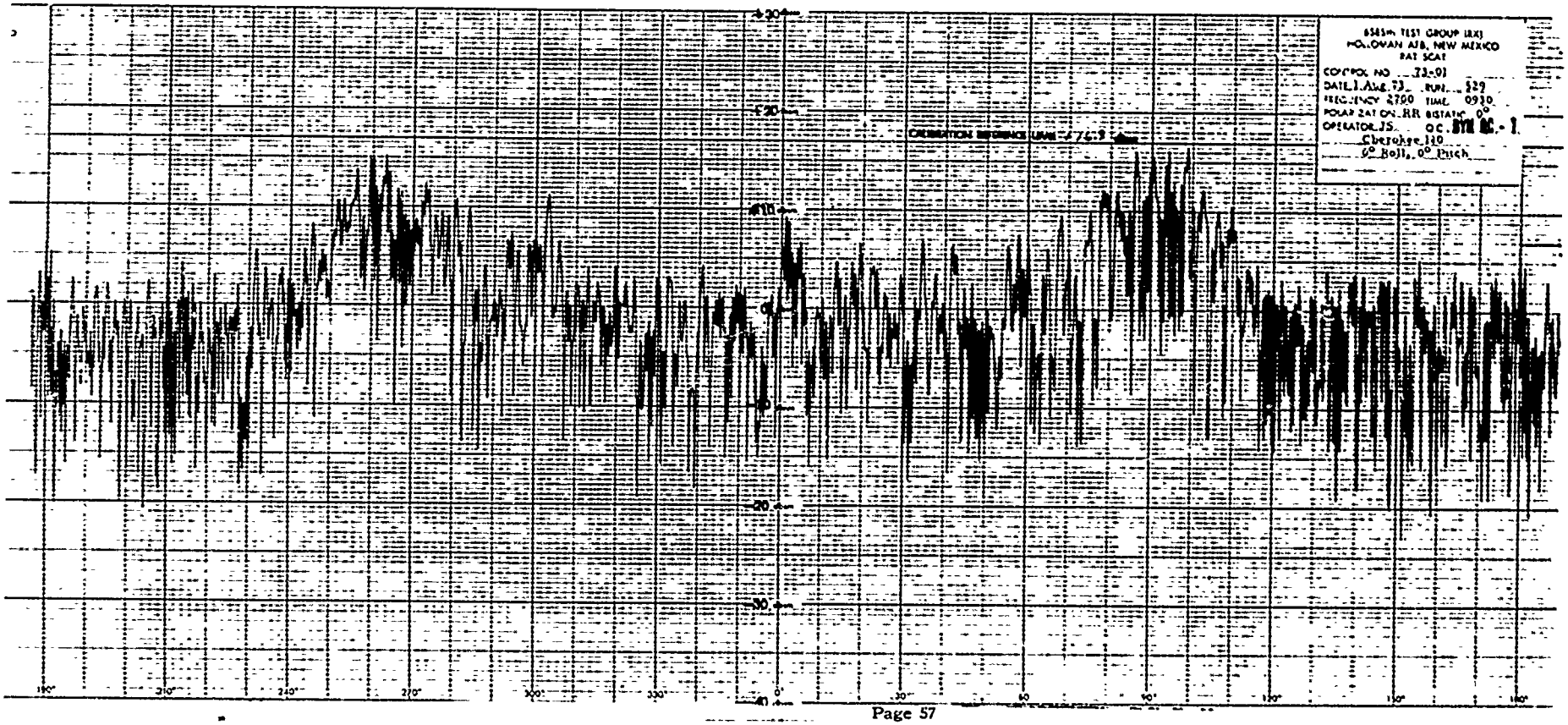
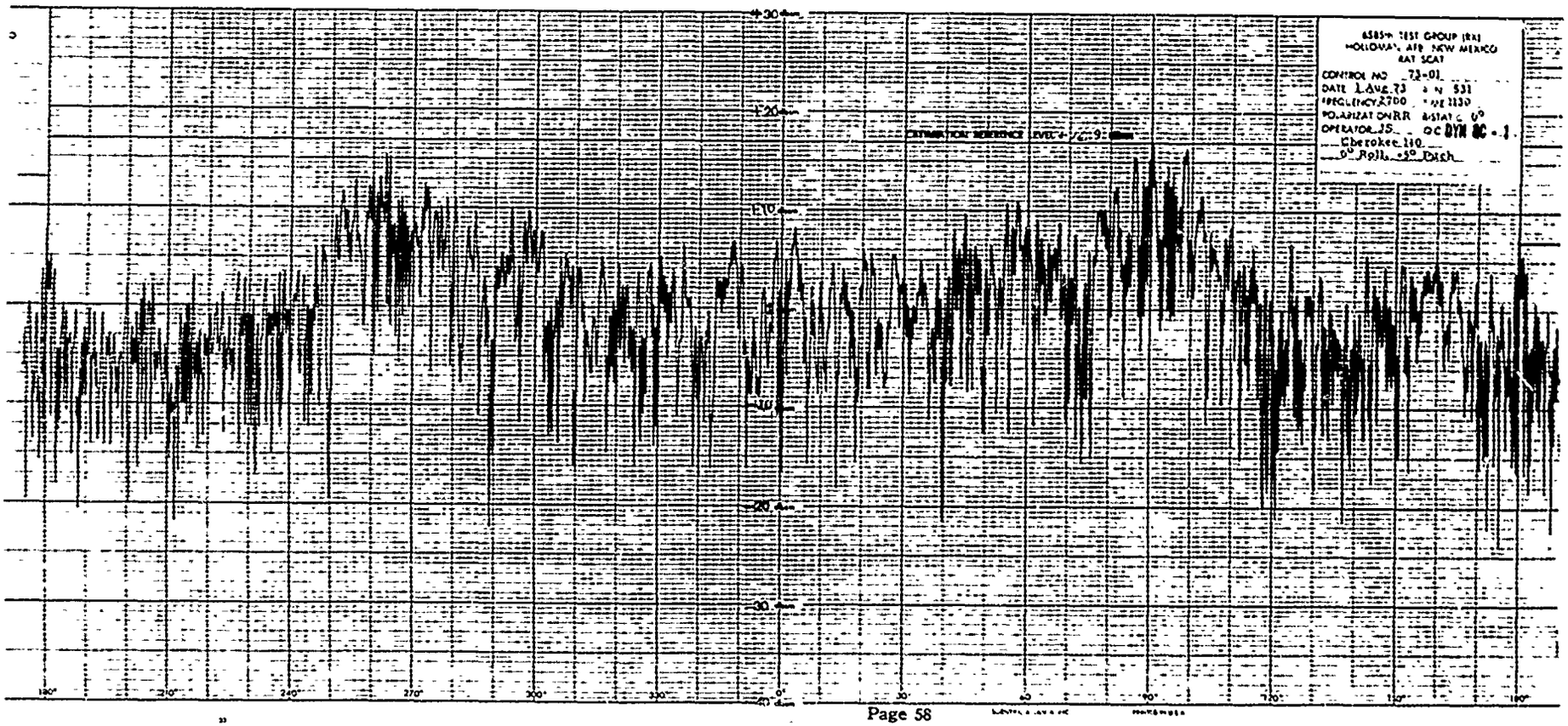
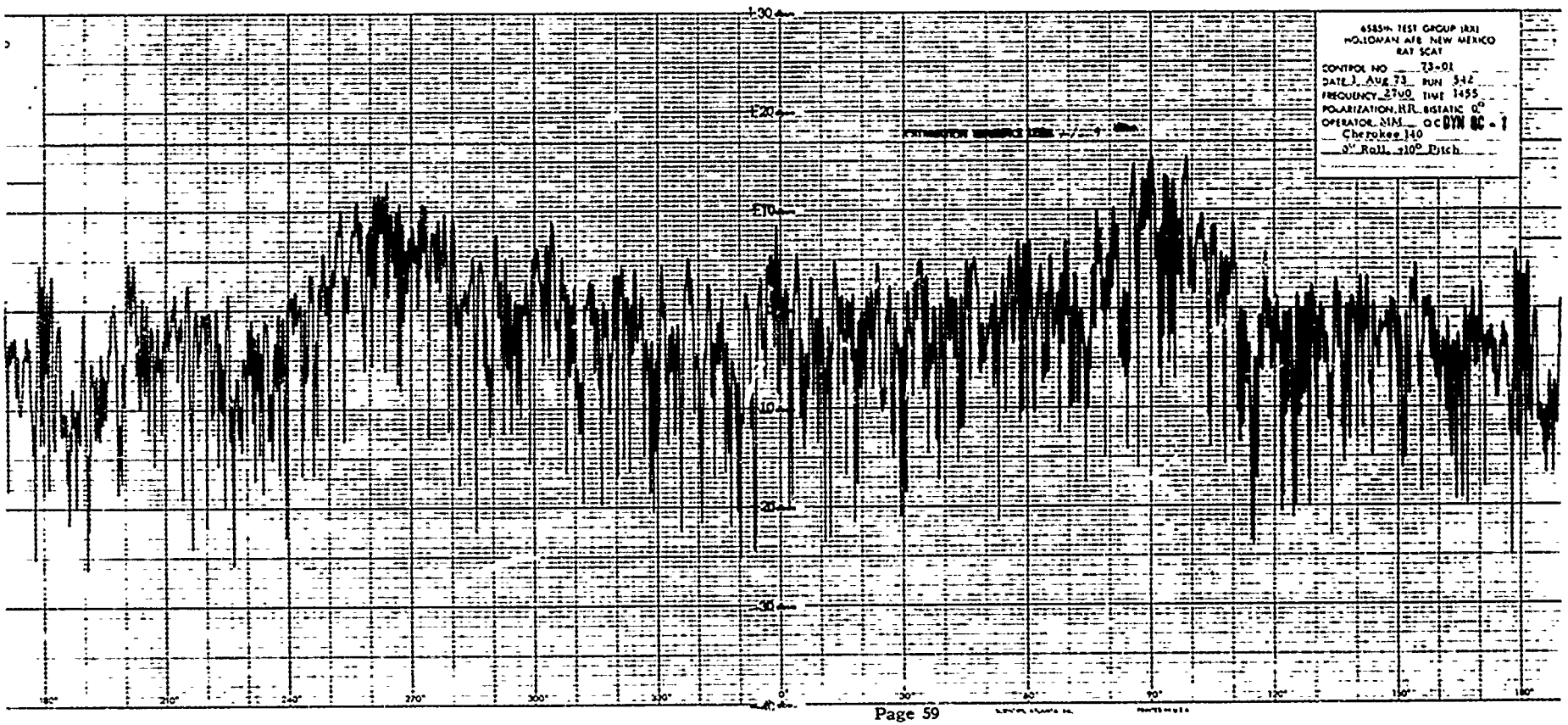
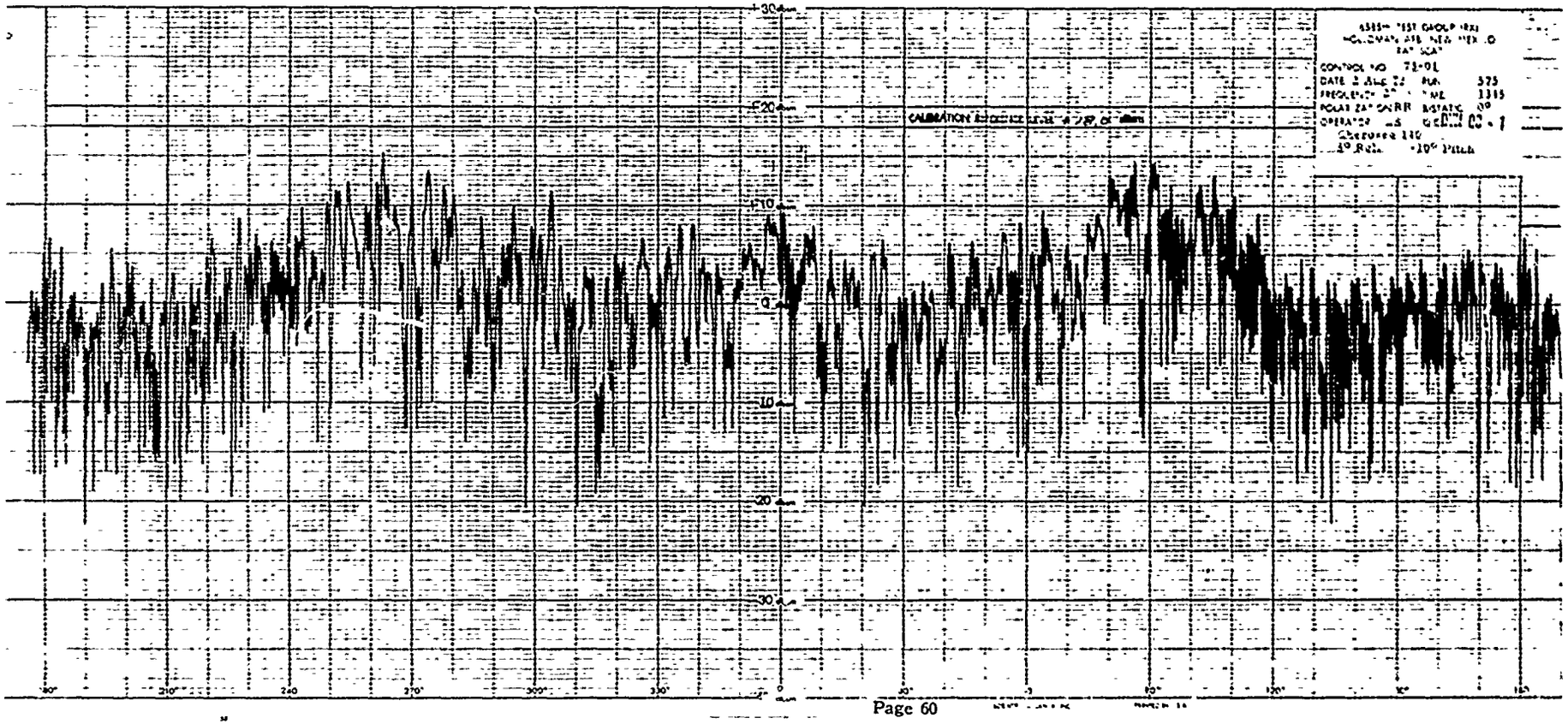

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 572
FREQUENCY 2700 TIME 1200
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
0° Roll, -10° Pitch
+30 dBsm
+20 dBsm
CALIBRATION REFERENCE LEVEL
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240
270
300
330
0°
30°
60
90
120°
150°

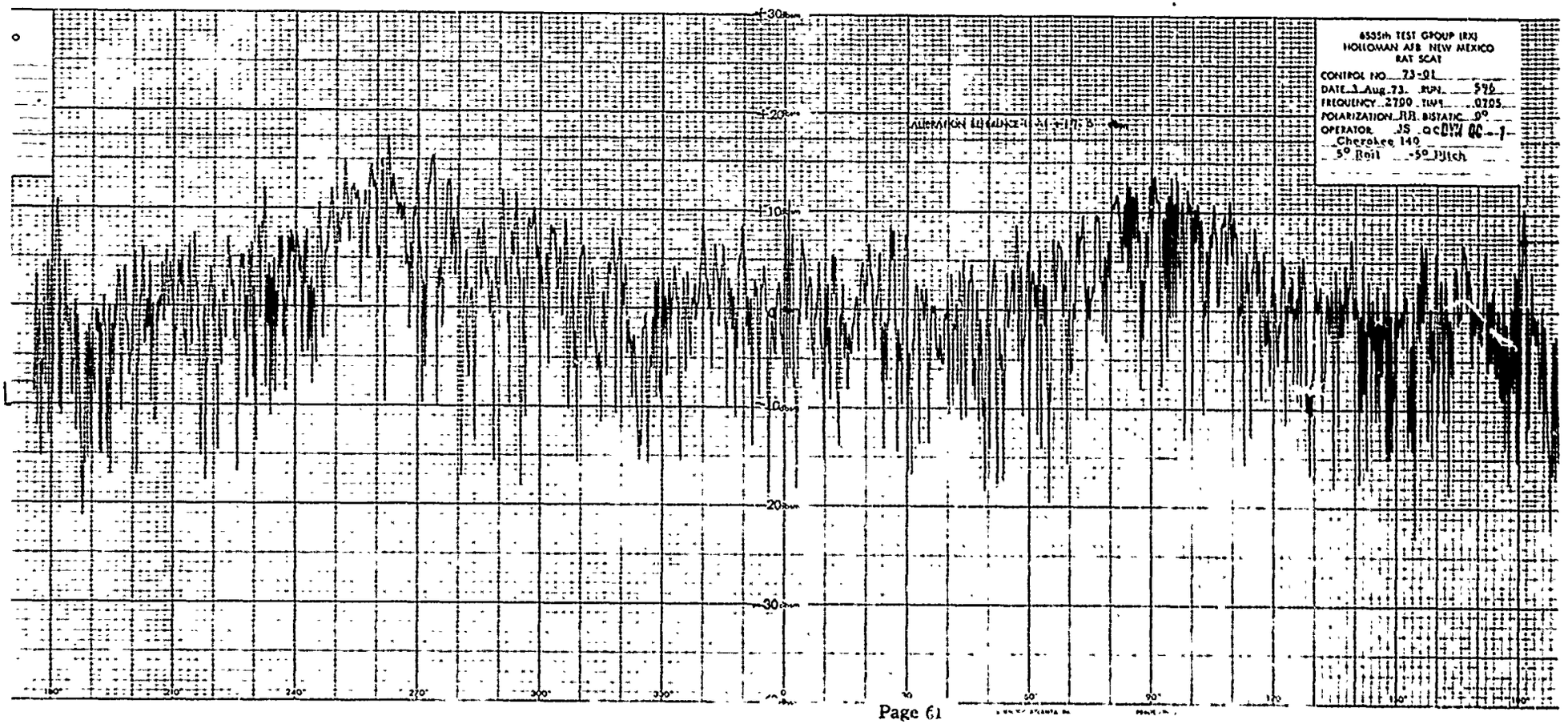

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 561
FREQUENCY 2700 TIME 0720
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC -1
Cherokee 140
0° Roll, -5° Pitch
+30 dBm
+20
+10
-10
-20
-30
180°
270°
300
330°
0°
30
60°
90°
120°
150°
180°

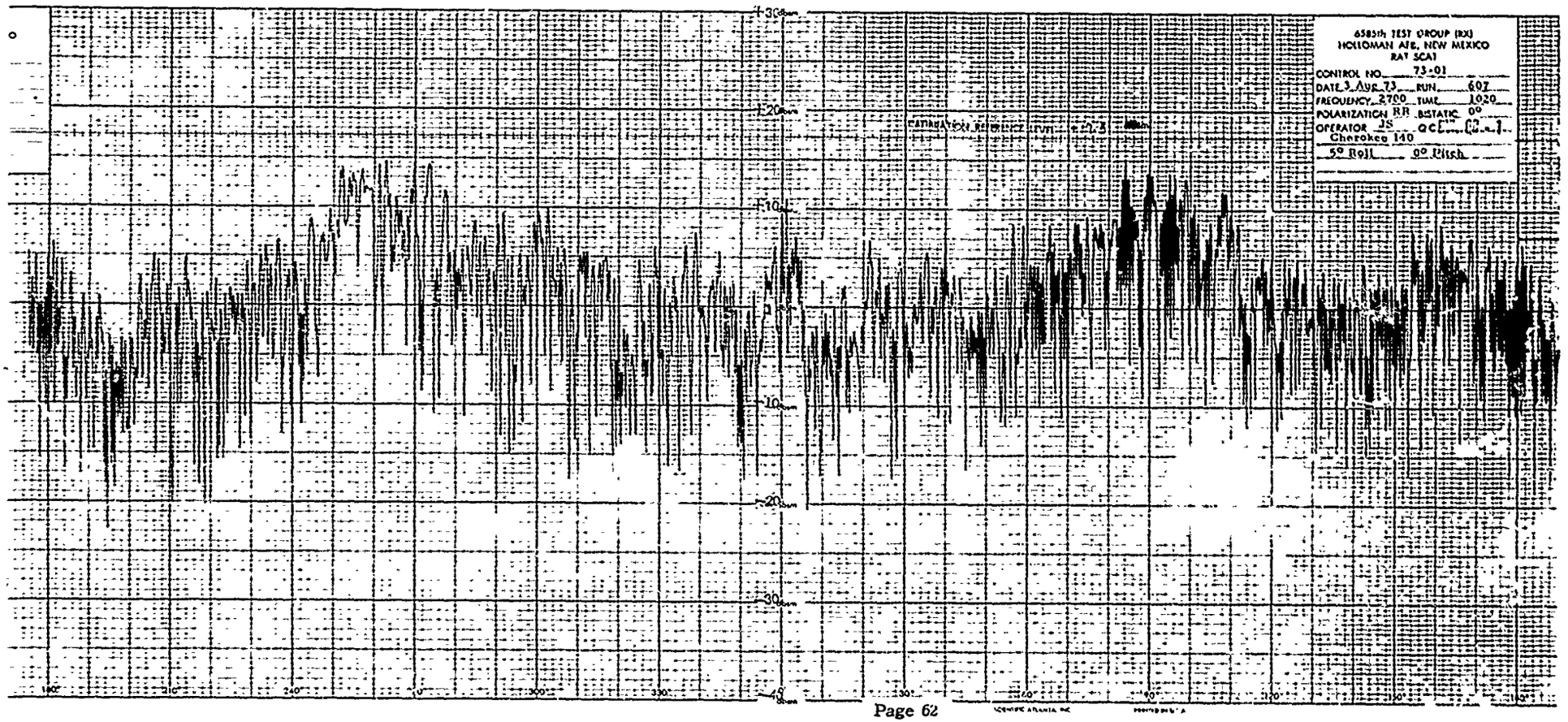

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 1 Aug 73 RUN 529
FREQUENCY 2700 TIME 0930
POLAR SAT ON RR ROTATE 0°
OPERATOR JS OC BYE SC - 1
Cherokee 140
0° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL -47.6:9
+30
+20
+10
0
-10
-20
-30
-40
180°
210°
240°
270°
300°
330°
0°
30°
60
90°
120°
150°
180°

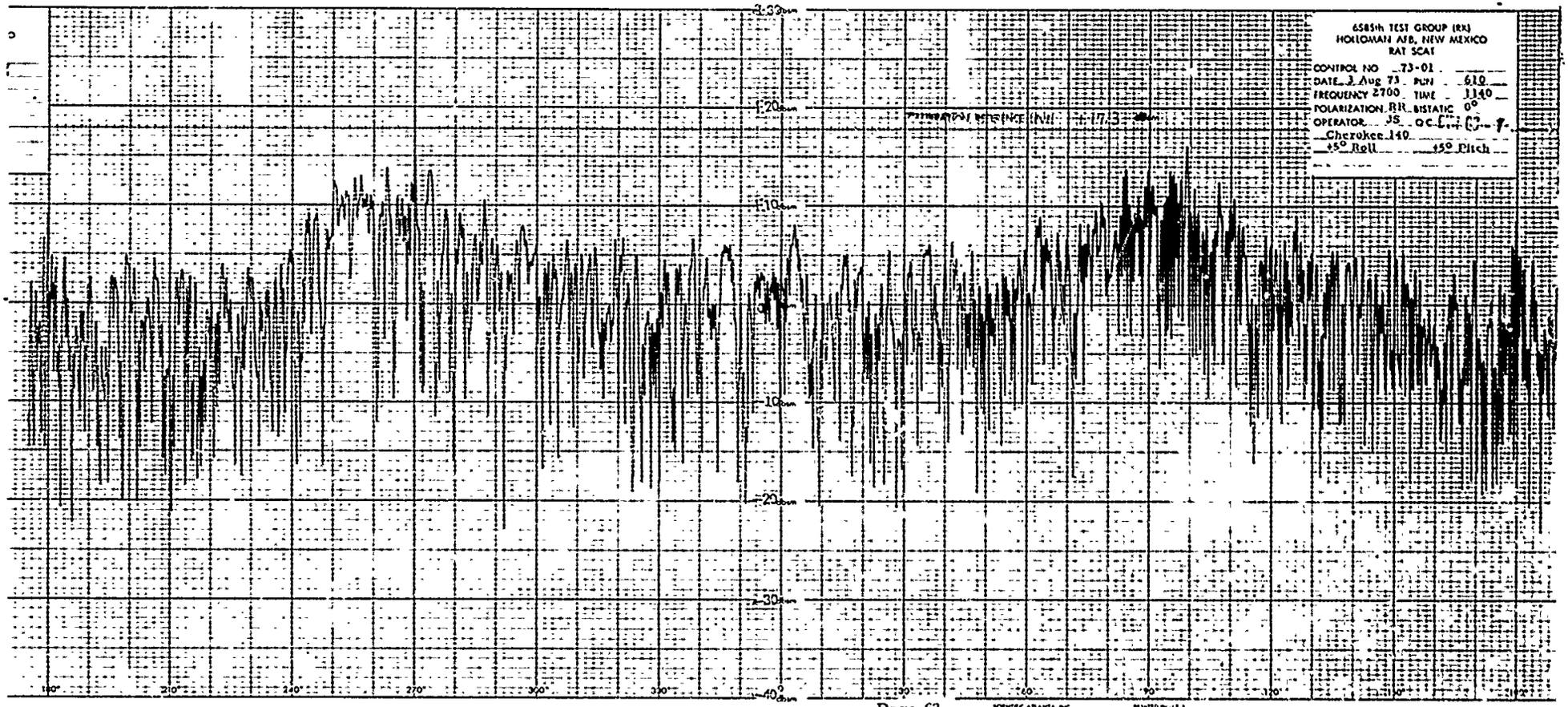

6585th TEST GROUP (RA)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE JUNE 73
FREQUENCY 2700
OPERATOR JS
Cherokee 110
0° Roll, +5° Pitch
+30
+20
+10
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

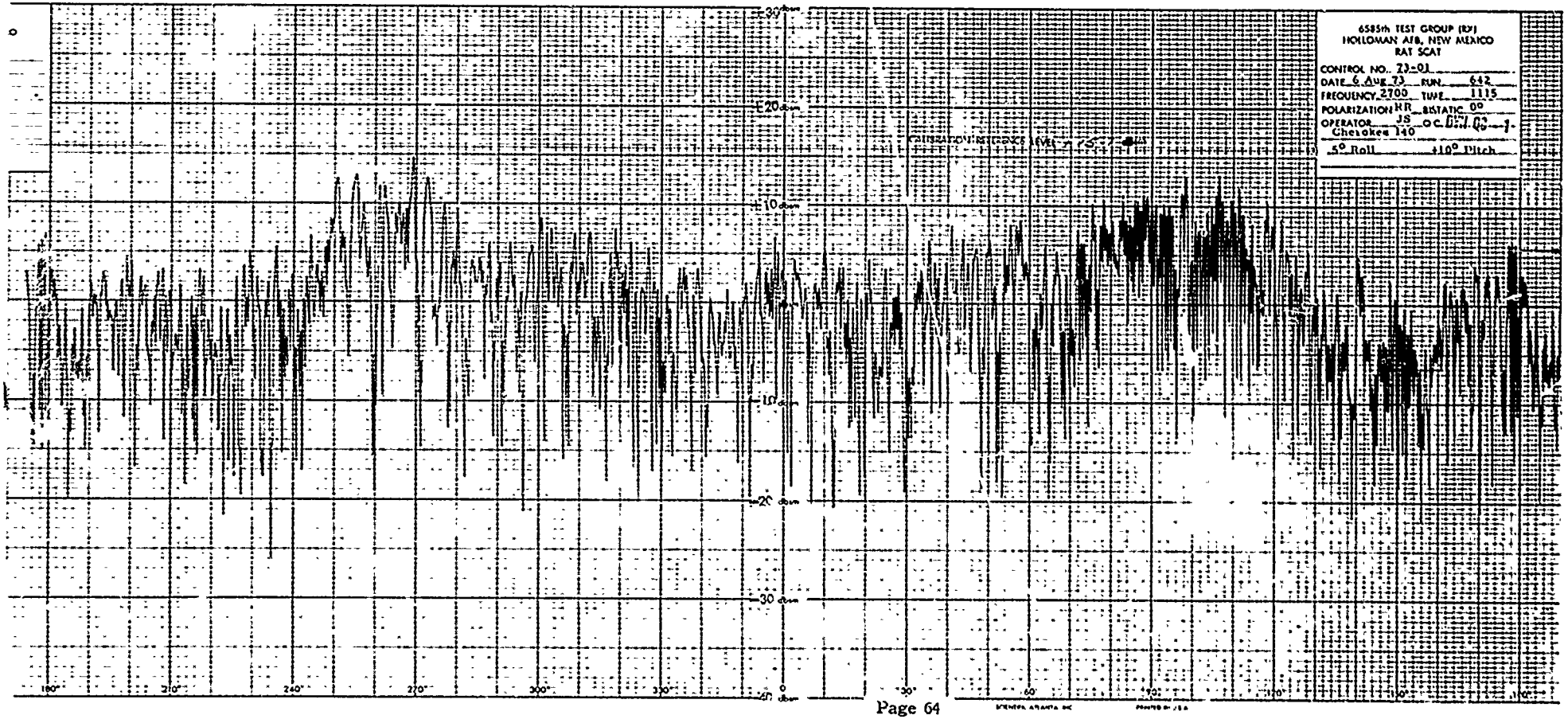

6585th TEST GROUP (AXI)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73 RUN 342
FREQUENCY 2700 TIME 1455
POLARIZATION HH BISTATIC 0°
OPERATOR NM OC DYN RC - 1
Cherokee 140
9" Roll, ±10° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

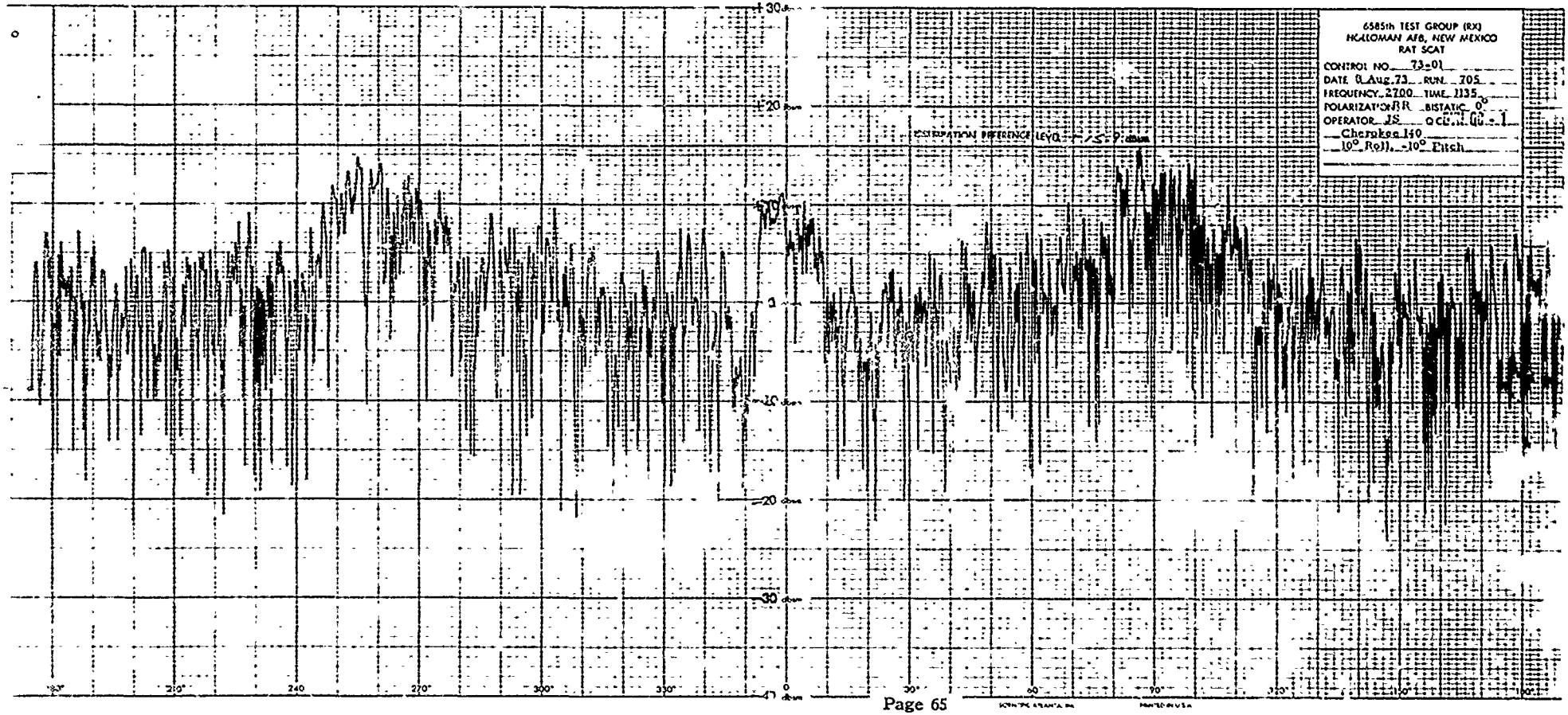

+30
+20
+10
0
-10
-20
-30
CONTROL NO 73-01
Cherokee 140
+10° Pitch

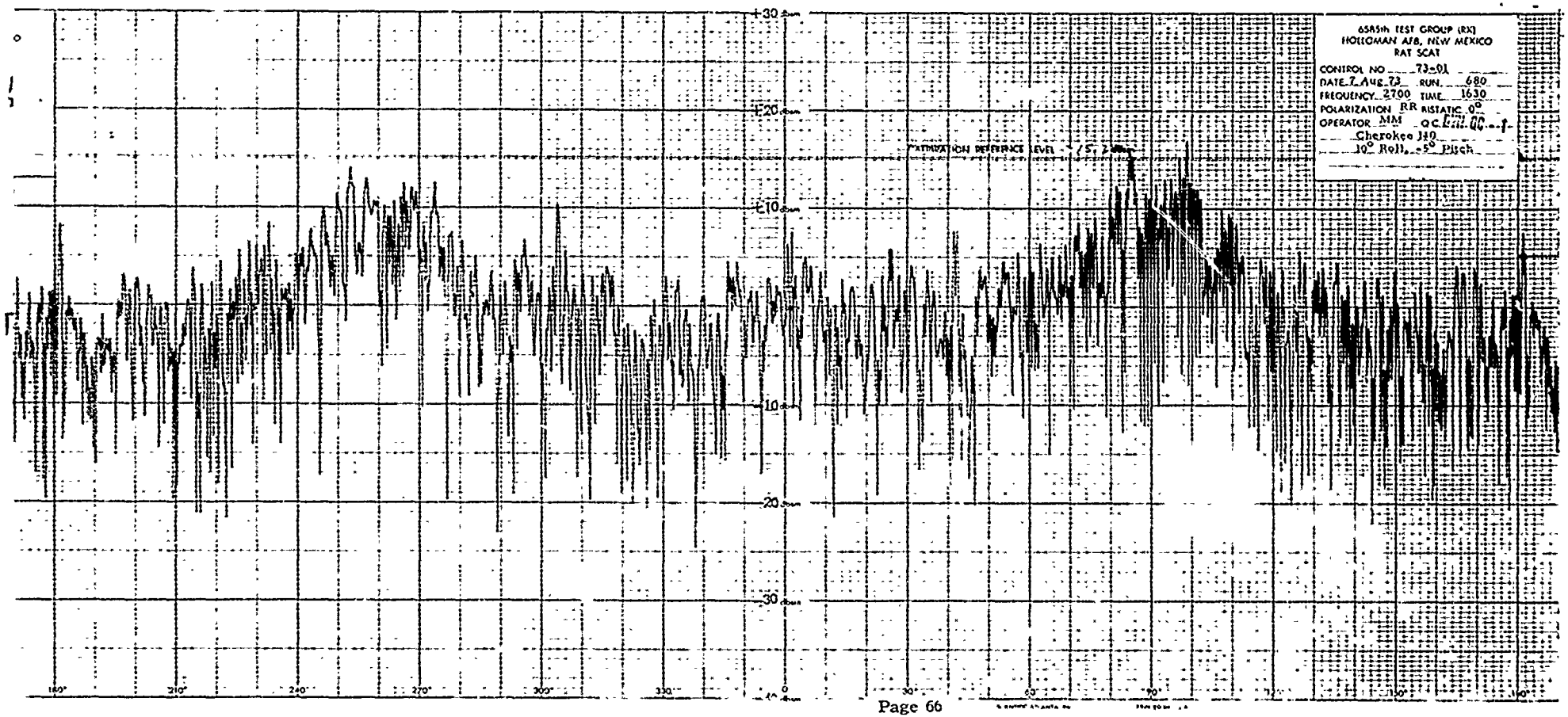

6595th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO. 73-91
DATE 3 Aug 73 RUN 576
FREQUENCY 2700 TAPE 0705
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DW QC
Cherokee 140
5° Roll -5° Pitch
-30dbsm
-20dbsm
-10dbsm
0dbsm
10dbsm
20dbsm
30dbsm
180°
210°
240°
270°
300°
330°
0
30
60
90
120
150
180

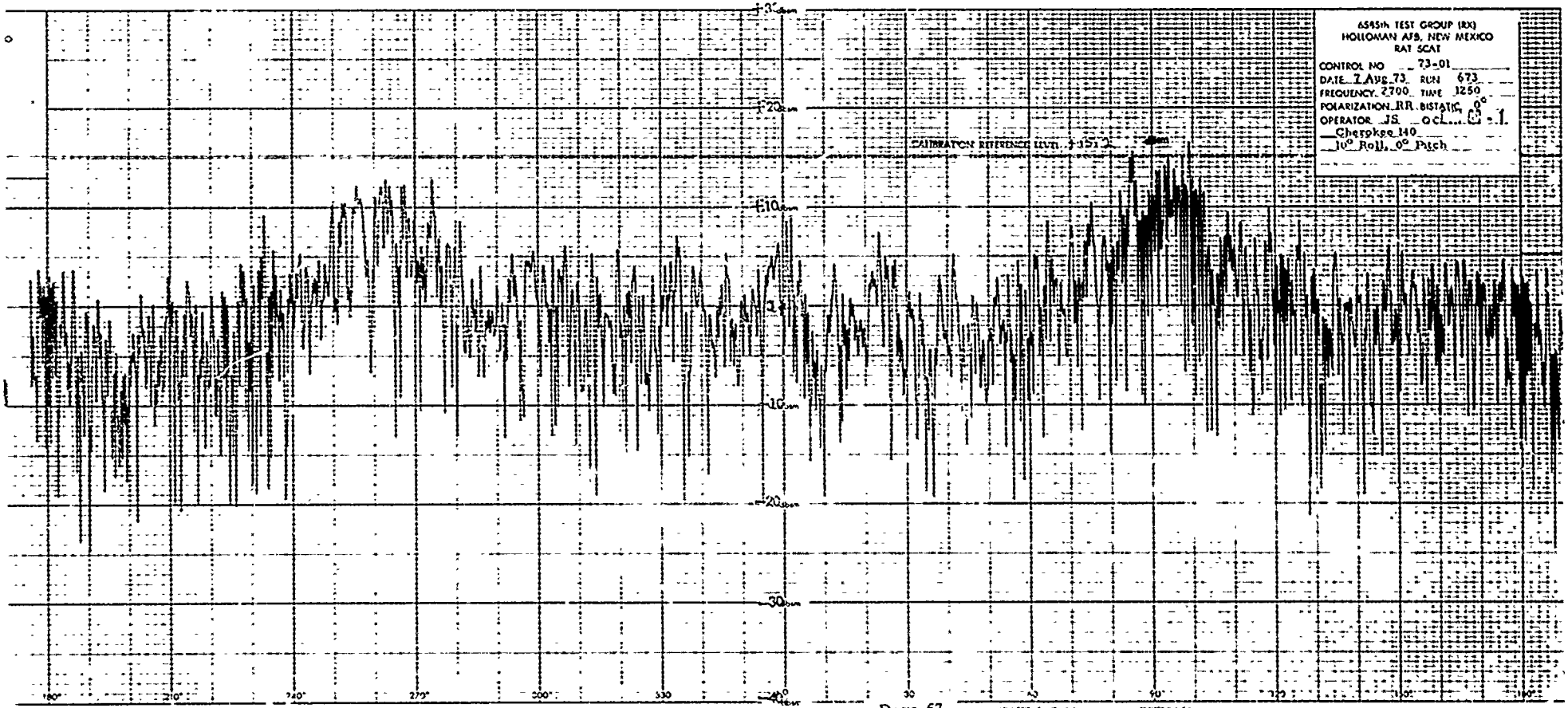

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 3 Apr 73 RUN 607
FREQUENCY 2700 TIME 1020
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC [illegible]
Cherokee 140
5° Roll 0° Pitch
+30
+20
+10
0
-10
-20
-30
-40
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

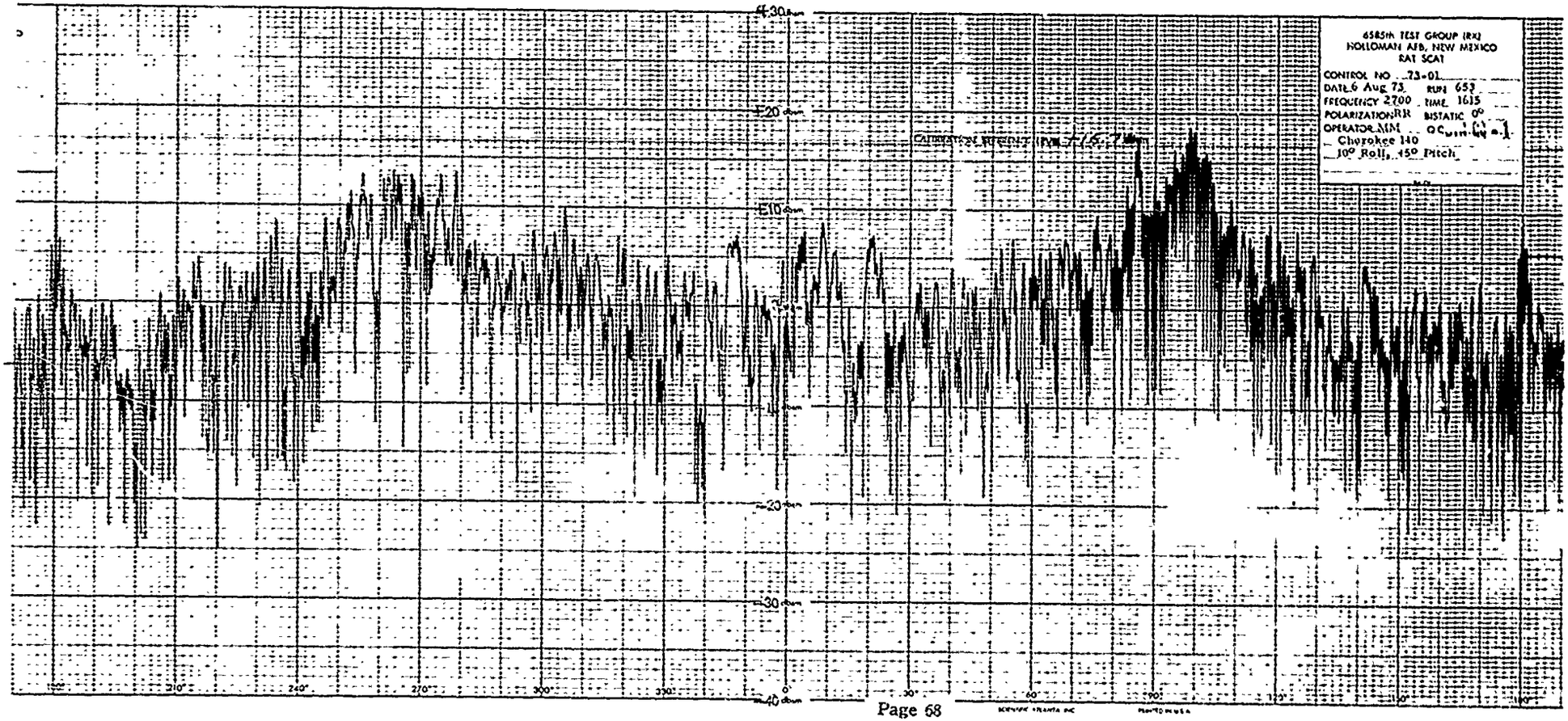

6585th TEST GROUP (RH)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73 PLN 610
FREQUENCY 2700 TIME 1140
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC
Cherokee 140
±5° Roll ±5° Pitch
-30dBsm
-20dBsm
-10dBsm
0dBsm
10dBsm
20dBsm
30dBsm
40dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°

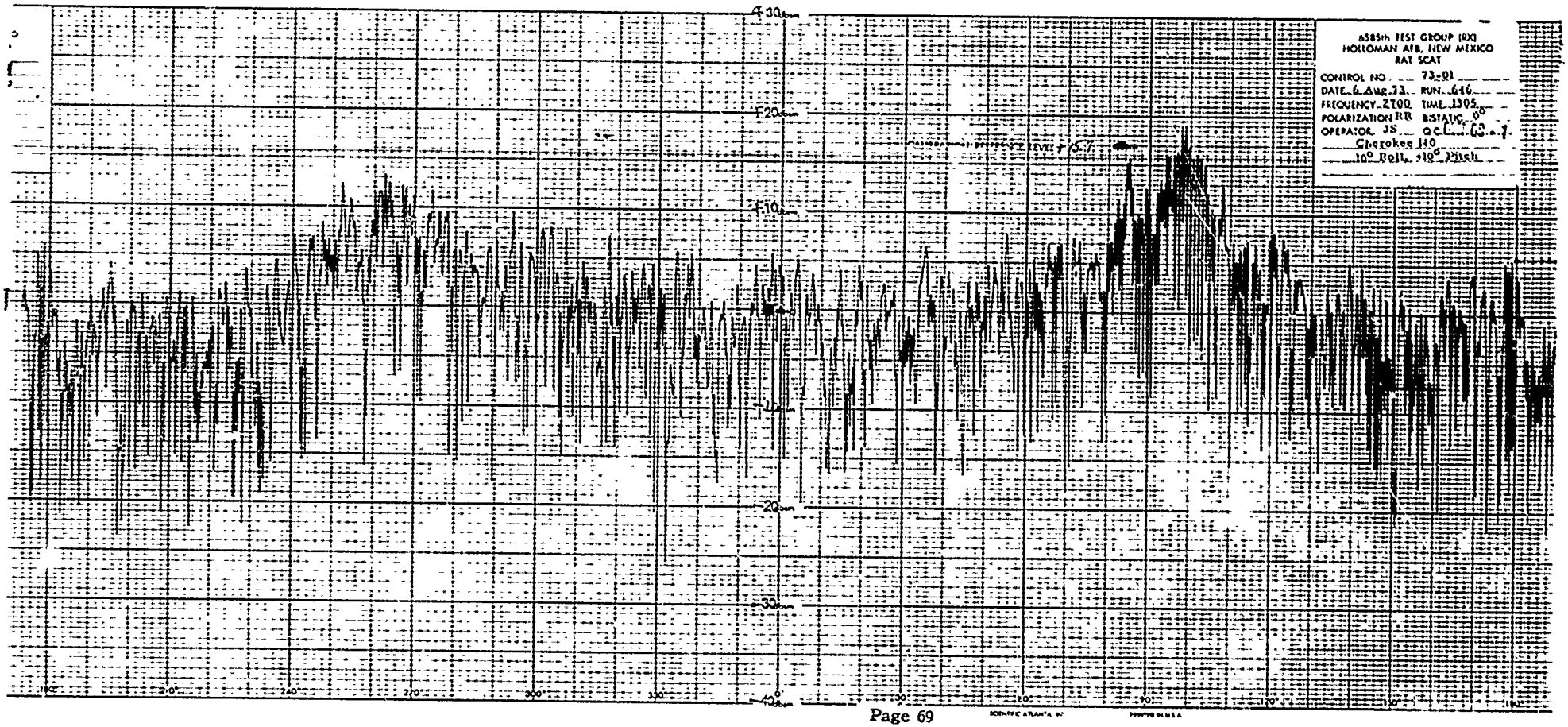

6585th TEST GROUP (RV)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 6 AUG 73 RUN 642
FREQUENCY 2700 TIME 1115
POLARIZATION HH BISTATIC 0°
OPERATOR JS OC DIV QS
Cherokee 140
5° Roll +10° Pitch
-30 dbsm
-20 dbsm
-10 dbsm
-0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
-40 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°

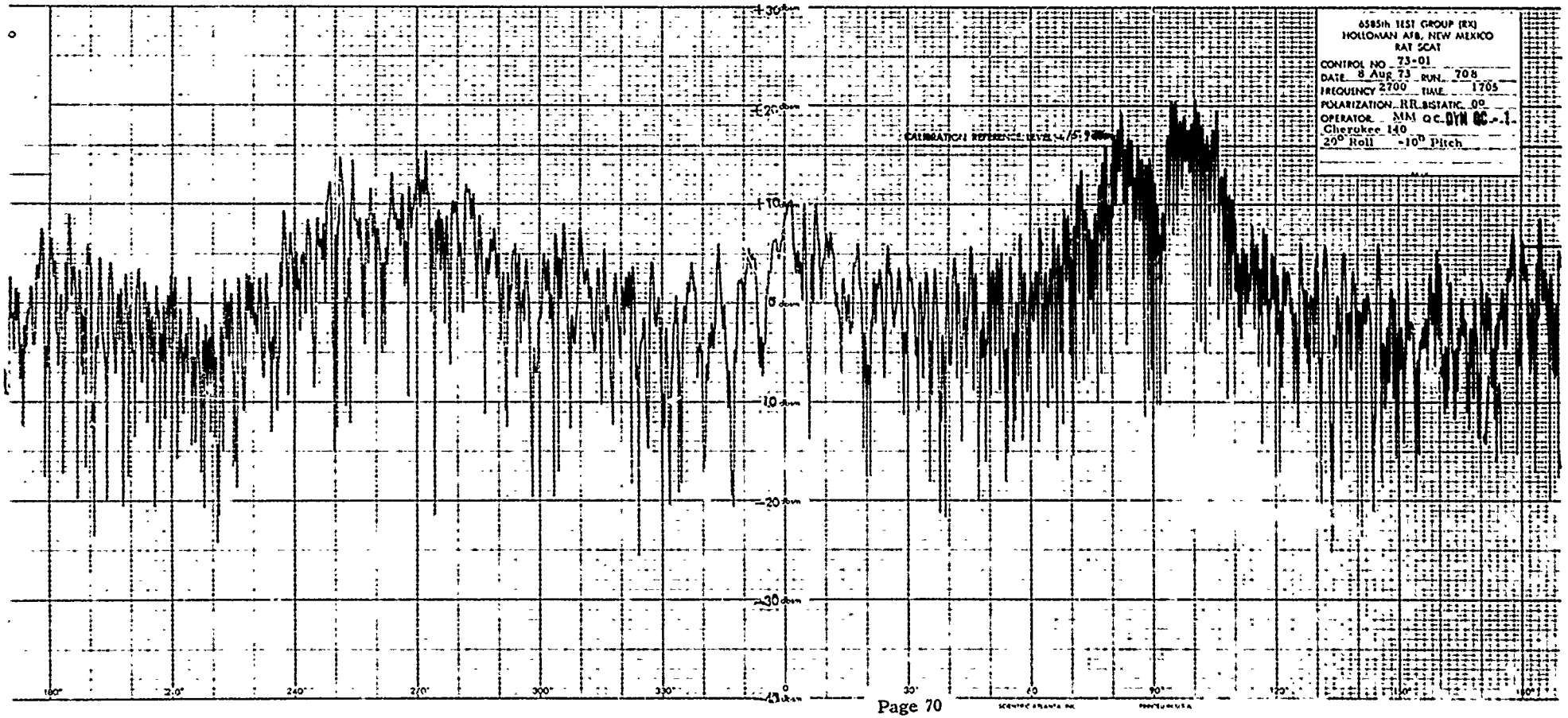

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 8 Aug 73 RUN 705
FREQUENCY 2700 TIME 1135
POLARIZATION HR BISTATIC 0°
OPERATOR JS OCC. CC-1
Cherokee 140
10° Roll, -10° Pitch
+30
+20
+10
0
-10
-20
-30
240
270
300
330
30
50
70

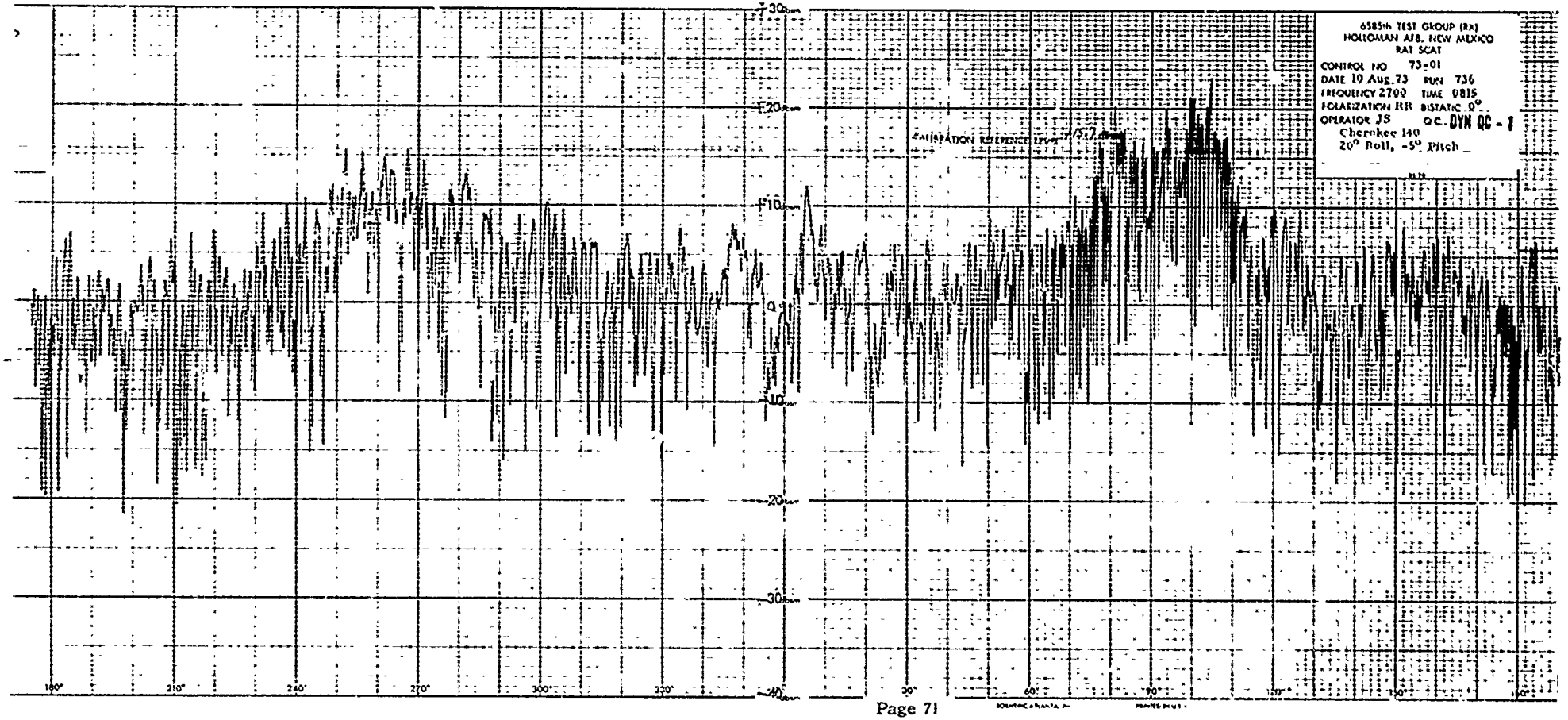

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 680
FREQUENCY 2700 TIME 1630
POLARIZATION RR RISTATIC 0°
OPERATOR MM QC
Cherokee 140
10° Roll, -5° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°

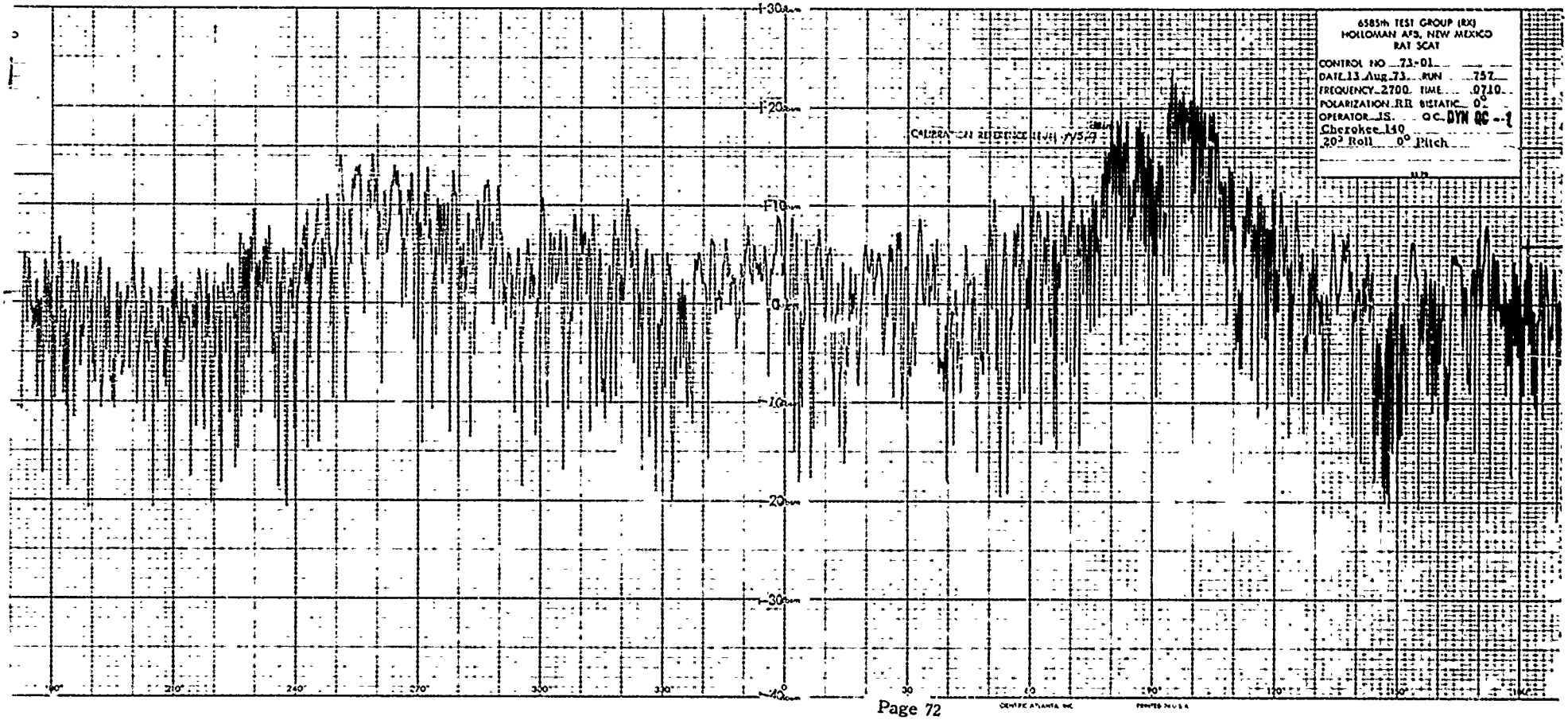

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 673
FREQUENCY 2700 TIME 1250
POLARIZATION RR BISTATIC 0°
OPERATOR JS OCL G = 1
Cherokee 140
10° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL -35 dBsm
-10dBsm
-20dBsm
-30dBsm
-40dBsm
180°
210°
240°
270°
300°
330
30
60
90°
120
150°
180°

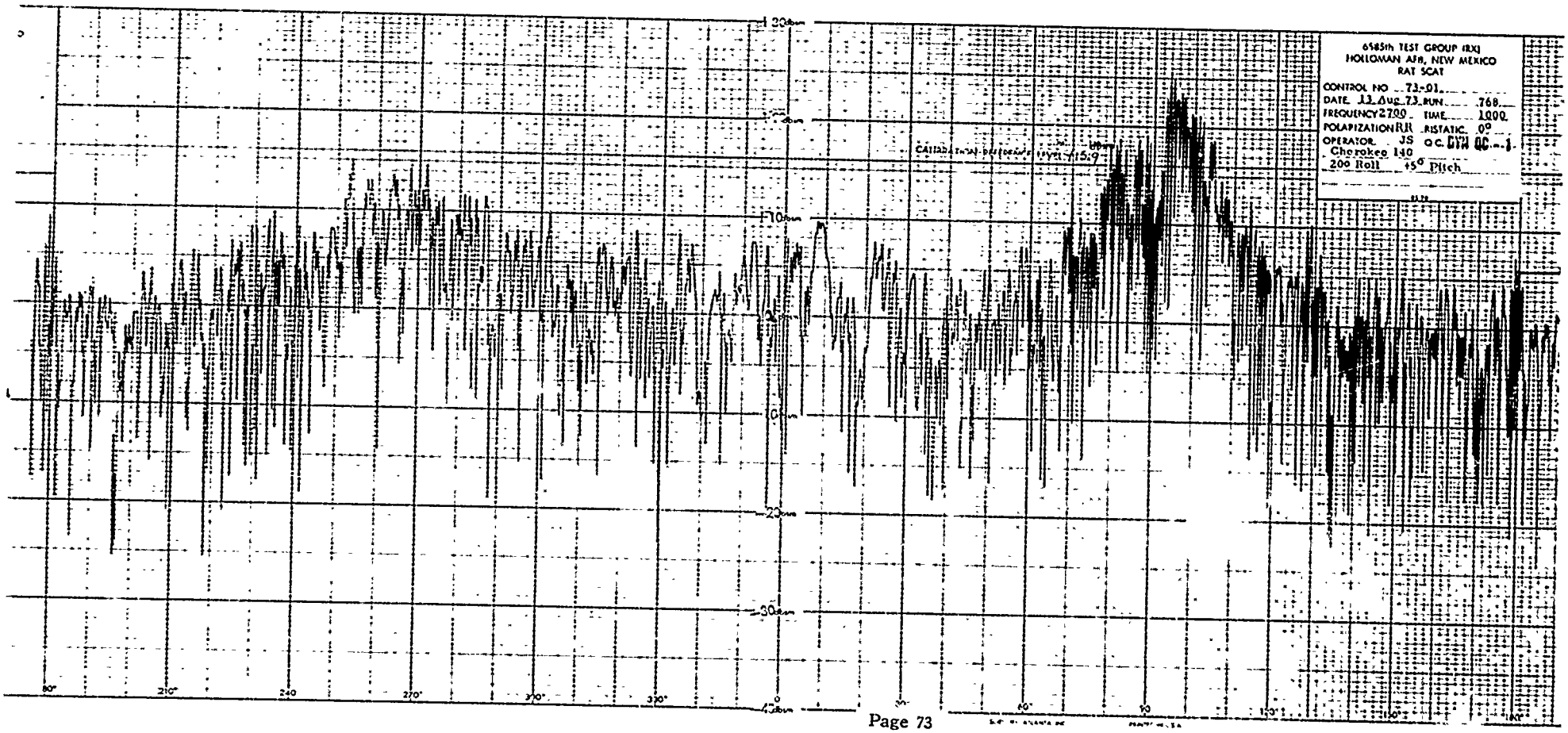

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 6 Aug 73 RUN 653
FREQUENCY 2700 TIME 1615
POLARIZATION RR BISTATIC 0°
OPERATOR MM QC
Cherokee 140
10° Roll, 15° Pitch
+30 dbsm
+20 dbsm
+10 dbsm
-20 dbsm
-30 dbsm
-40 dbsm
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

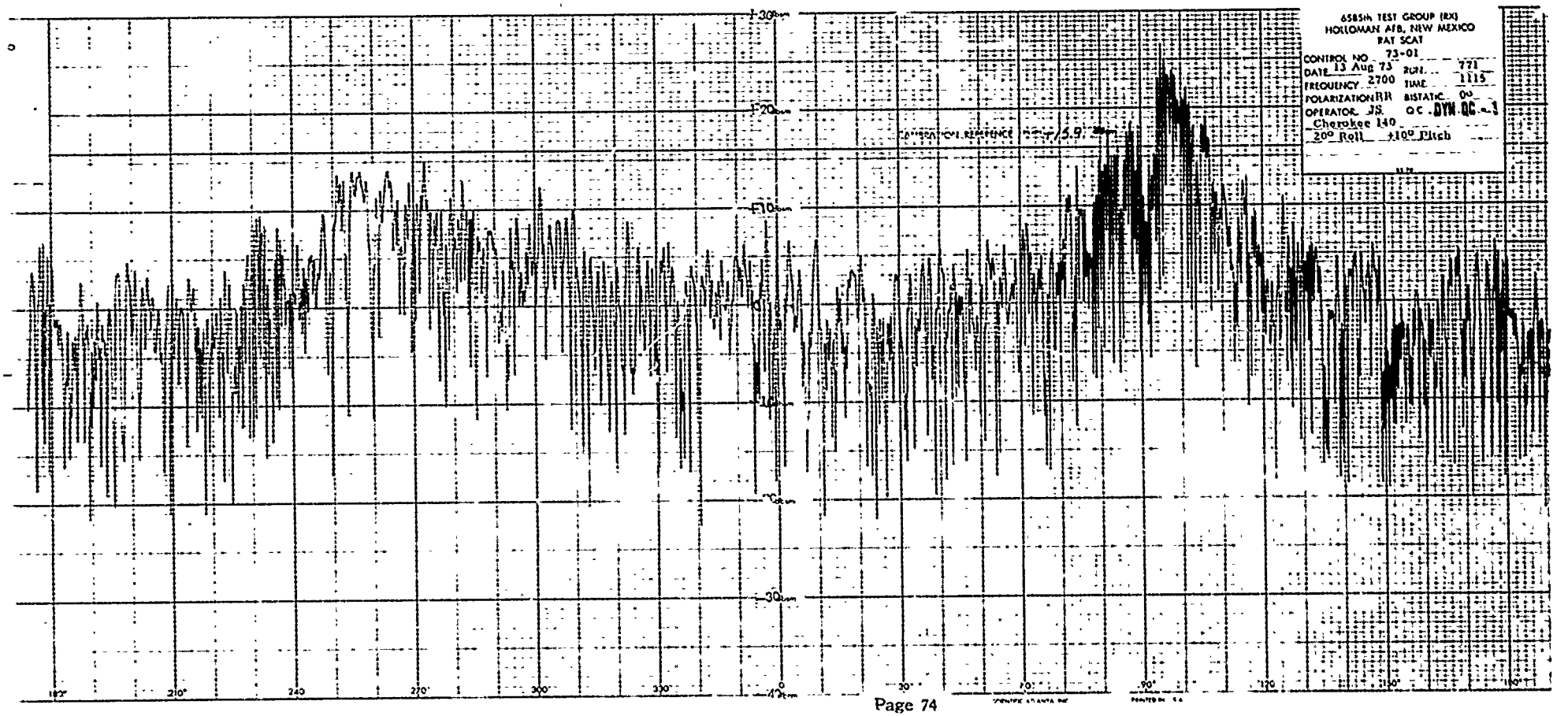

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-91
DATE 6 Aug 73 RUN 646
FREQUENCY 2700 TIME 1305
POLARIZATION RR BISTATIC 0°
OPERATOR JS OCL 63-1
Cherokee 140
10° Roll, +10° Pitch
-30dBsm
-20dBsm
-10dBsm
-1dBsm
-20dBsm
-30dBsm
-40dBsm
180°
210°
240°
270°
300°
330°
30°
60°
90°
120°
150°
180°

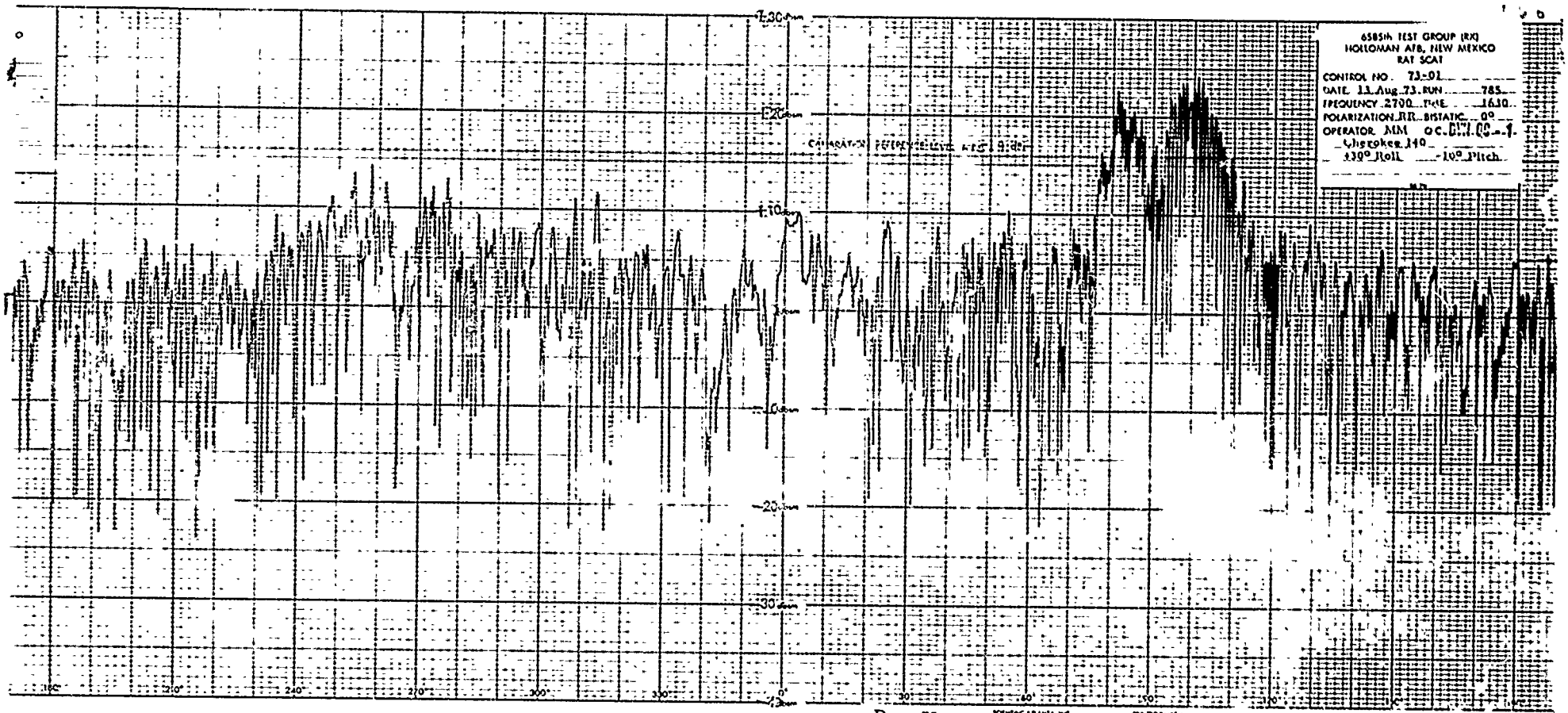

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 8 AUG 73 RUN 70h
FREQUENCY 2700 TIME 1705
POLARIZATION RR BISTATIC 0°
OPERATOR MM QC DYN QC-1
Cherokee 140
20° Roll -10° Pitch
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0
30°
60
90°
120°
150°
180°

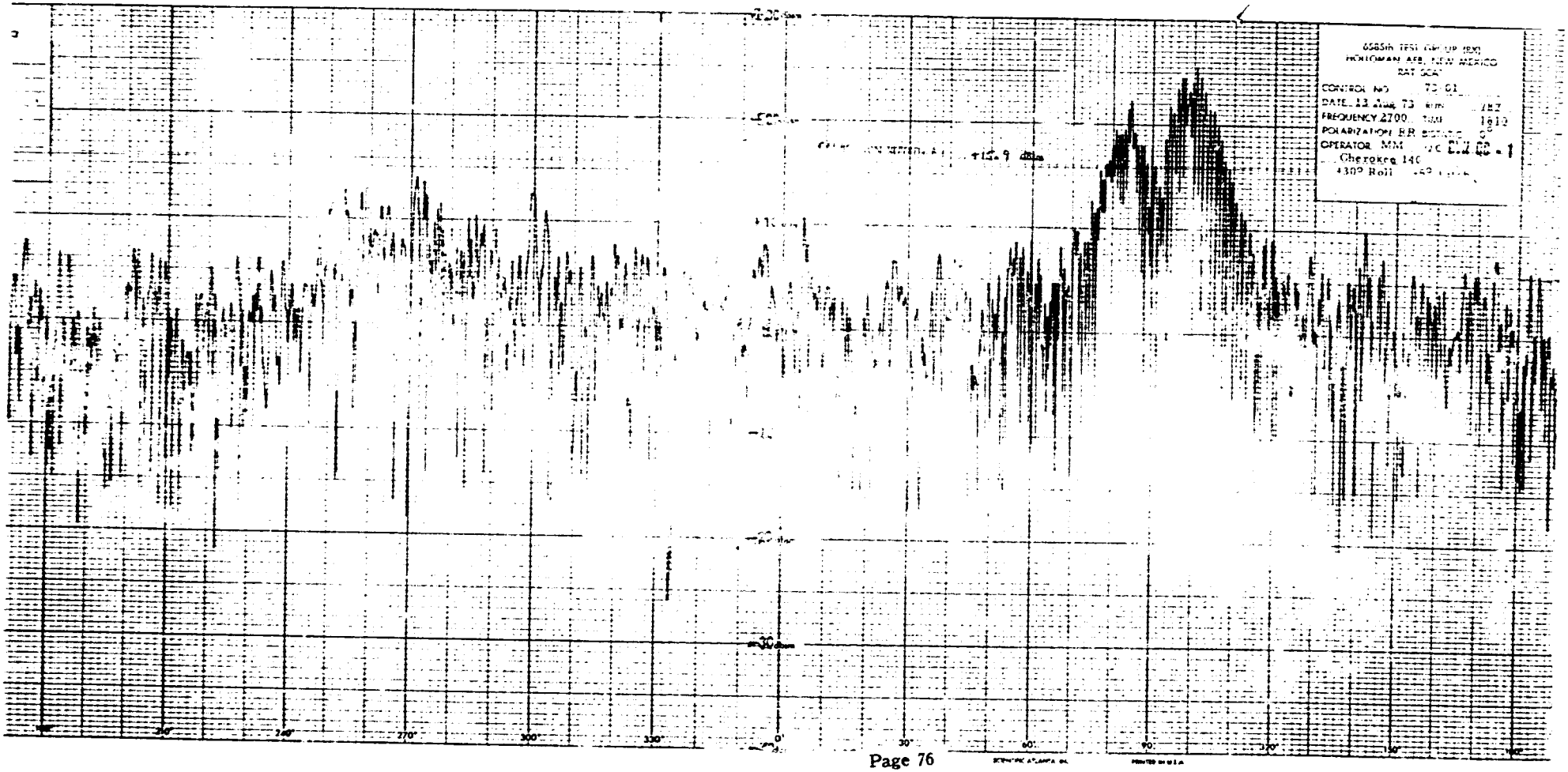

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 10 Aug 73 RUN 736
FREQUENCY 2700 TIME 0815
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
20° Roll, -5° Pitch
-30dbsm
-20dbsm
-10dbsm
0
10dbsm
20dbsm
30dbsm
180°
210°
240°
270°
300°
330°
30°
60°
90°

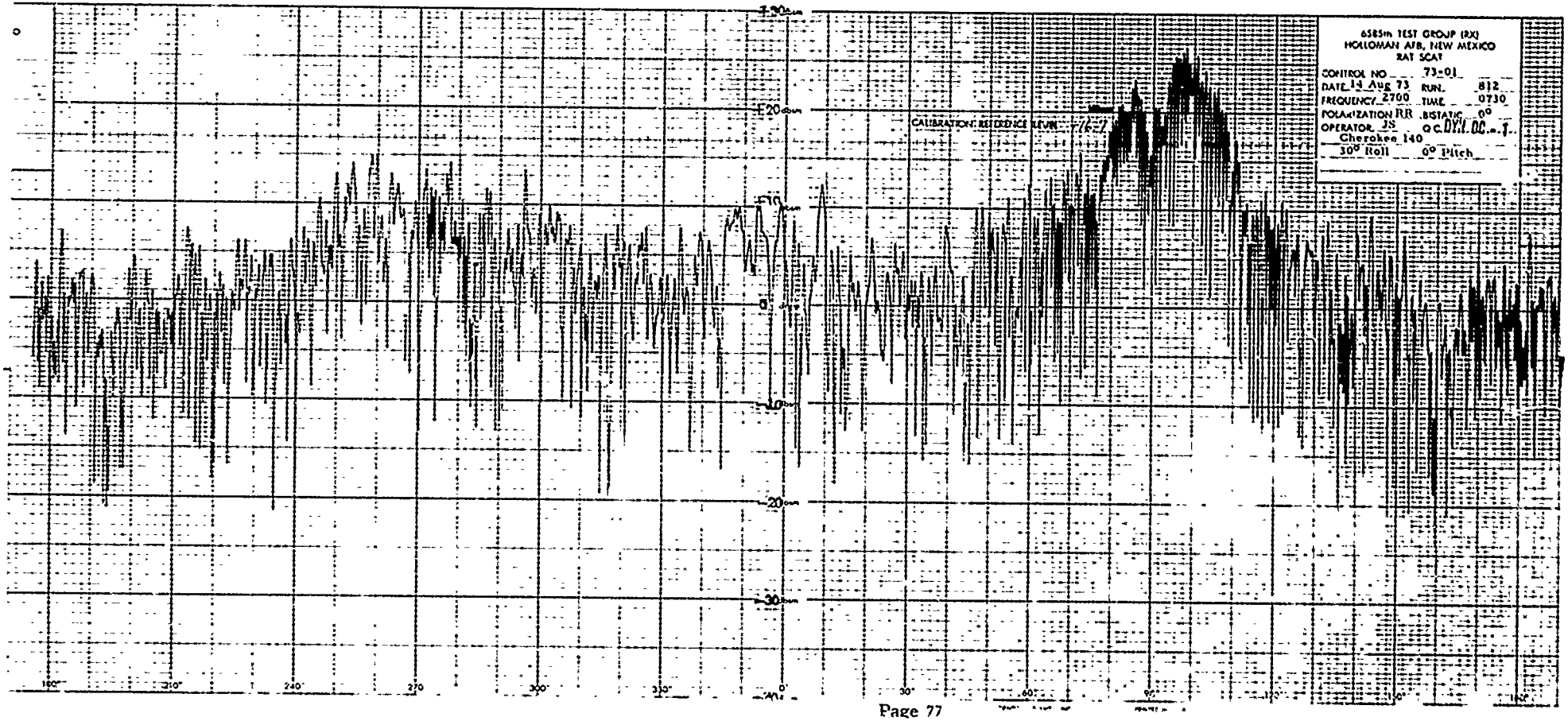

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 757
FREQUENCY 2700 TIME 0710
POLARIZATION RR BISTATIC 0°
OPERATOR JS OC DYN QC -1
Cherokee 150
20° Roll 0° Pitch
+30
+20
+10
0
-10
-20
-30
-40
210°
240°
270°
300°
330°
30
60
90°
120°
150°

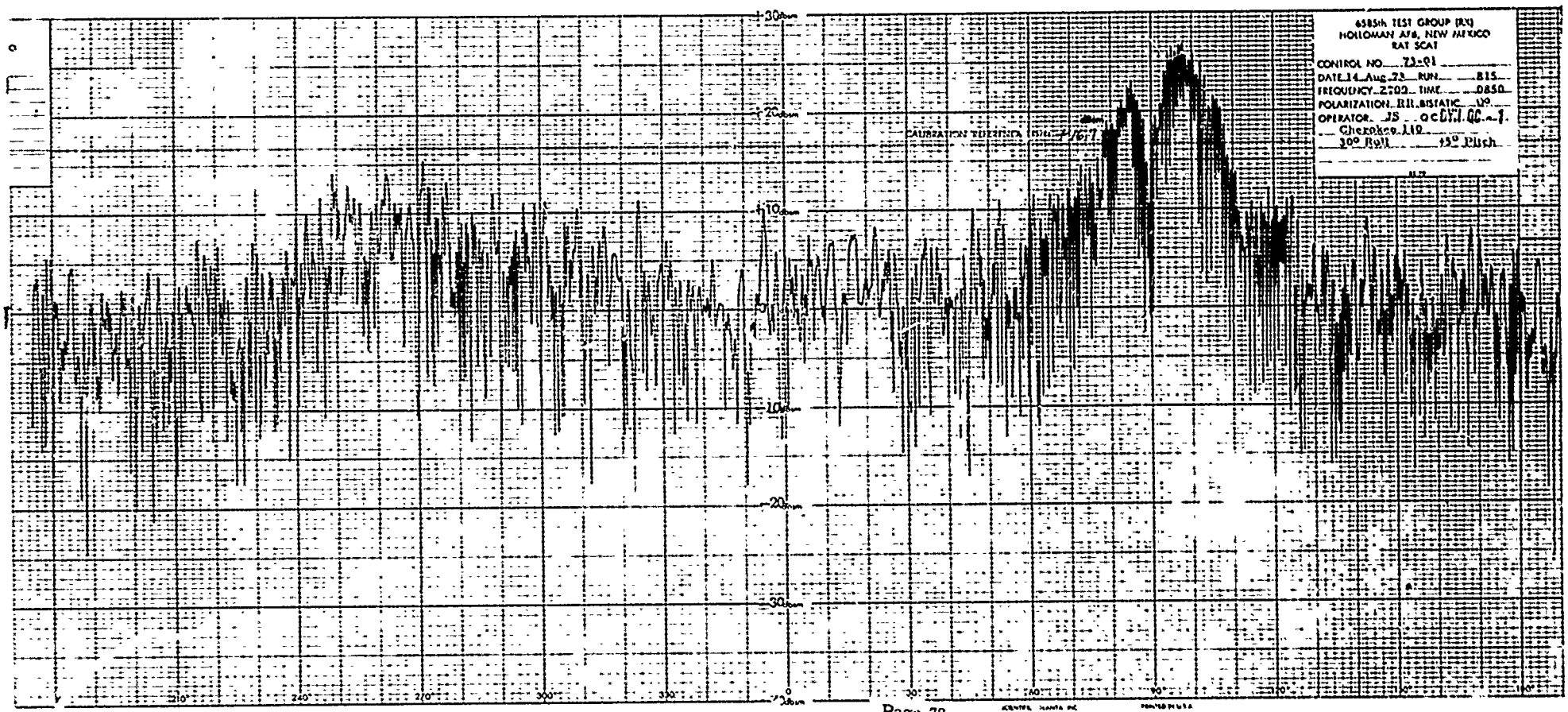

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 768
FREQUENCY 2700 TIME 1000
POLAPIZATION RR RISTATIC 0°
OPERATOR JS QC DTH QC
Cherokee 140
200 Roll +5° Pitch
-10dbm
0dbm
-20dbm
-30dbm
-40dbm
210°
240
270°
300°
330°
0
30°
60°
90
120°
150°

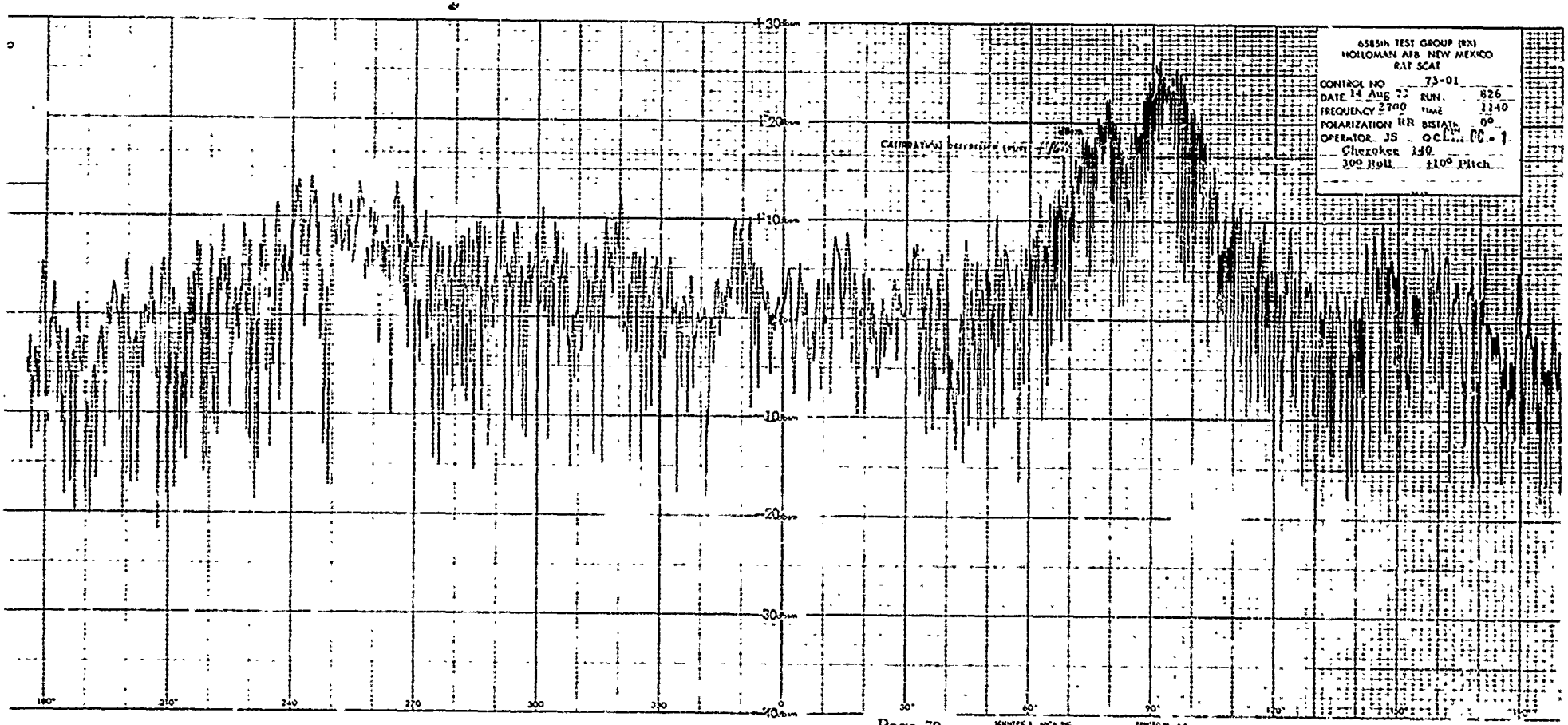

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 771
FREQUENCY 2700 TIME 1115
POLARIZATION RR BISTATIC 0u
OPERATOR JS OC DYN QC-1
Cherokee 140
20° Roll +10° Pitch
-30dbsm
-20dbsm
-10dbsm
0
-10dbsm
-30dbsm
180°
210°
240
270°
300°
330°
0
30°
70°
90°
120
150°
180°

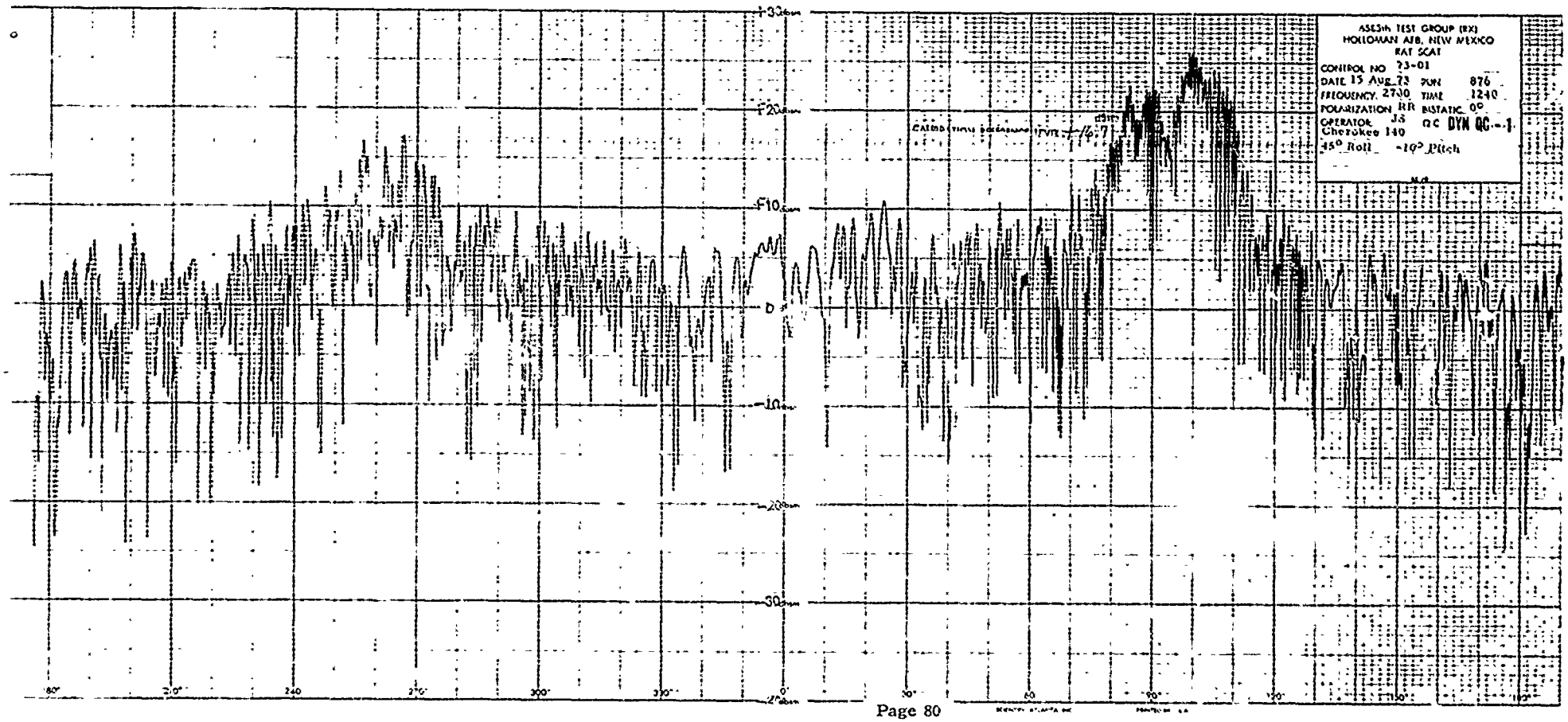

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 13 Aug 73 RUN 785
FREQUENCY 2700 TIME 1610
POLARIZATION RR BISTATIC 0°
OPERATOR MM OC DWG 00-1
Cherokee 140
339° Roll -10° Pitch
-10
-20
-30
240°
270°
300°
330°
30°
60°
90°

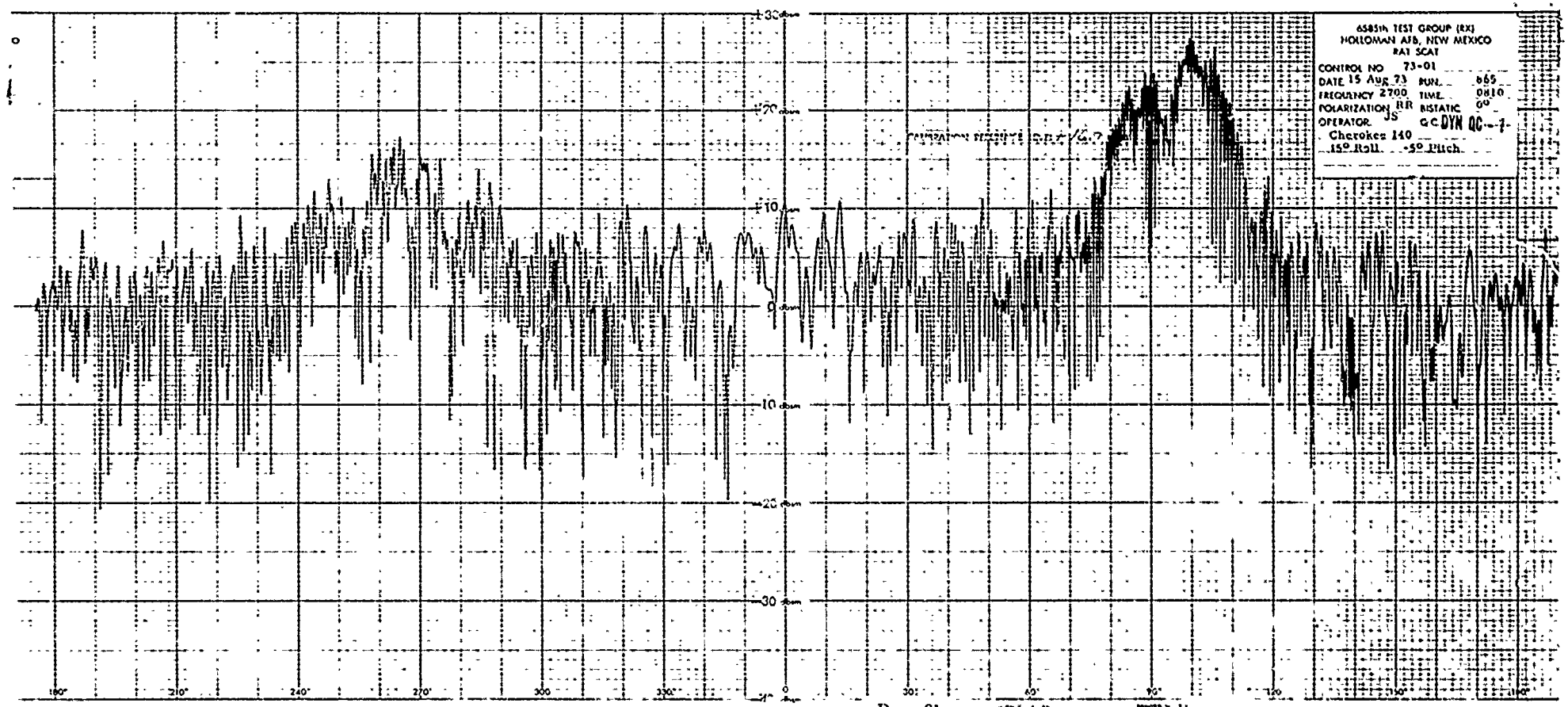

6585th TEST GROUP (DT)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-61
DATE 13 Aug 73
FREQUENCY 2700
POLARIZATION
OPERATOR
Cherokee 140
430° Roll
+12.9 dBsm
-30 dBsm
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

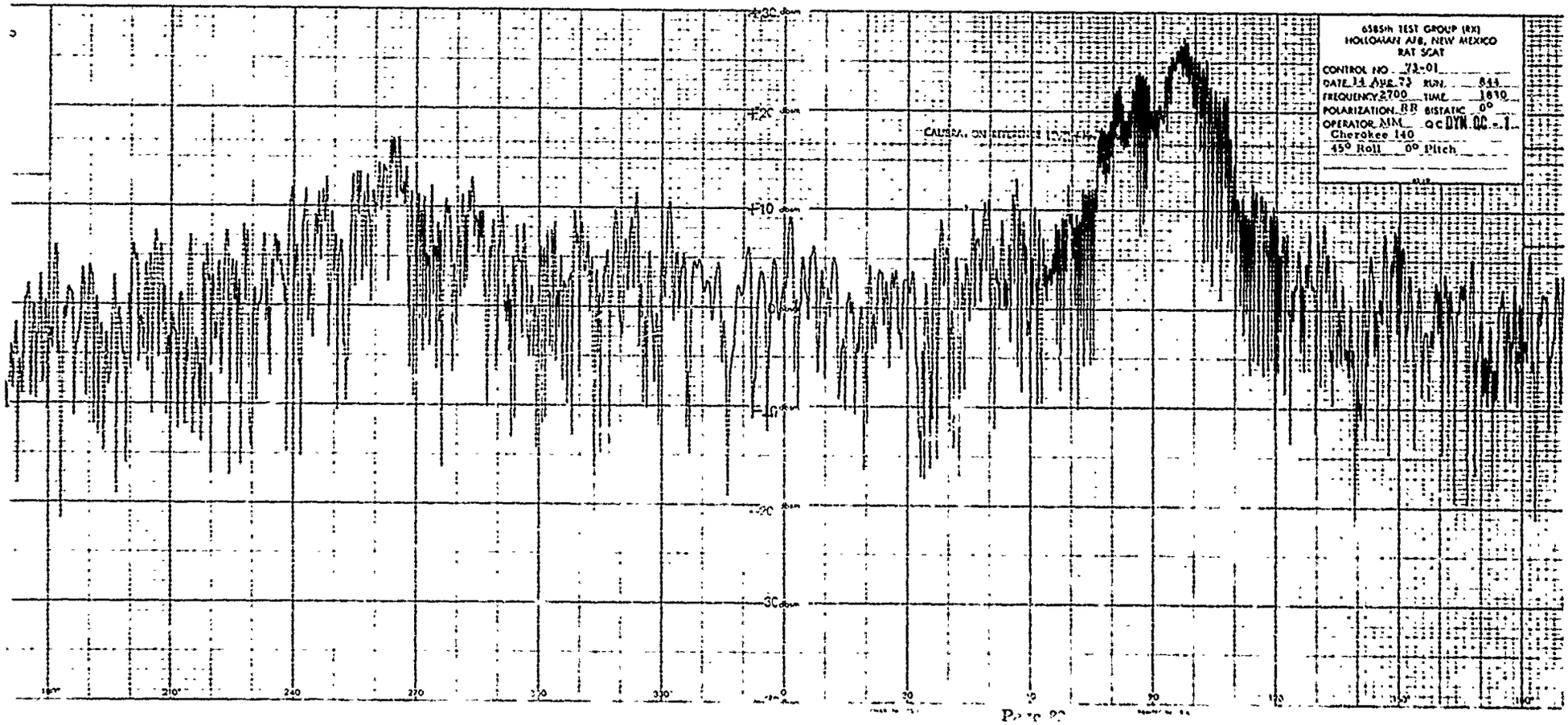

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73
RUN 812
FREQUENCY 2700
TIME 0730
POLARIZATION RR
BISTATIC 0°
OPERATOR JS
Cherokee 140
30° Roll
0° Pitch
CALIBRATION REFERENCE LEVEL
+30dbsm
+20dbsm
+10
0
-10dbsm
-20dbsm
-30dbsm
180°
210°
240°
270
300°
330°
0°
30°
60°
90°
120°
150°
180°

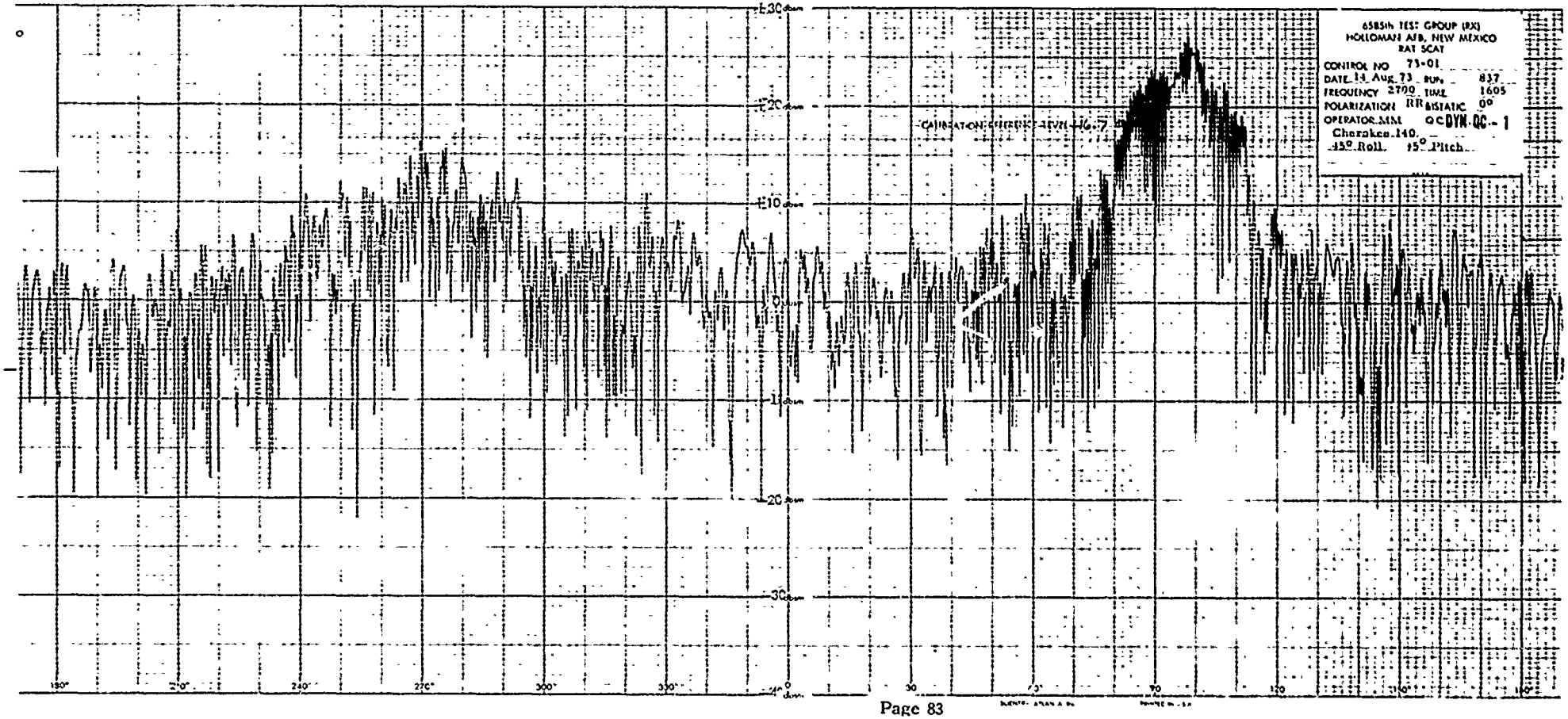

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-91
DATE 14 Aug 73 RUN 815
FREQUENCY 2700 TIME 0850
POLARIZATION RR BISTATIC UP
OPERATOR JS QC CVT QC-1
Cherokee 110
30° Roll 15° Pitch
CALIBRATION TUESDAY
-10dbsm
-20dbsm
-30dbsm
210°
240°
270°
300°
330°
0
30°
60°
90°

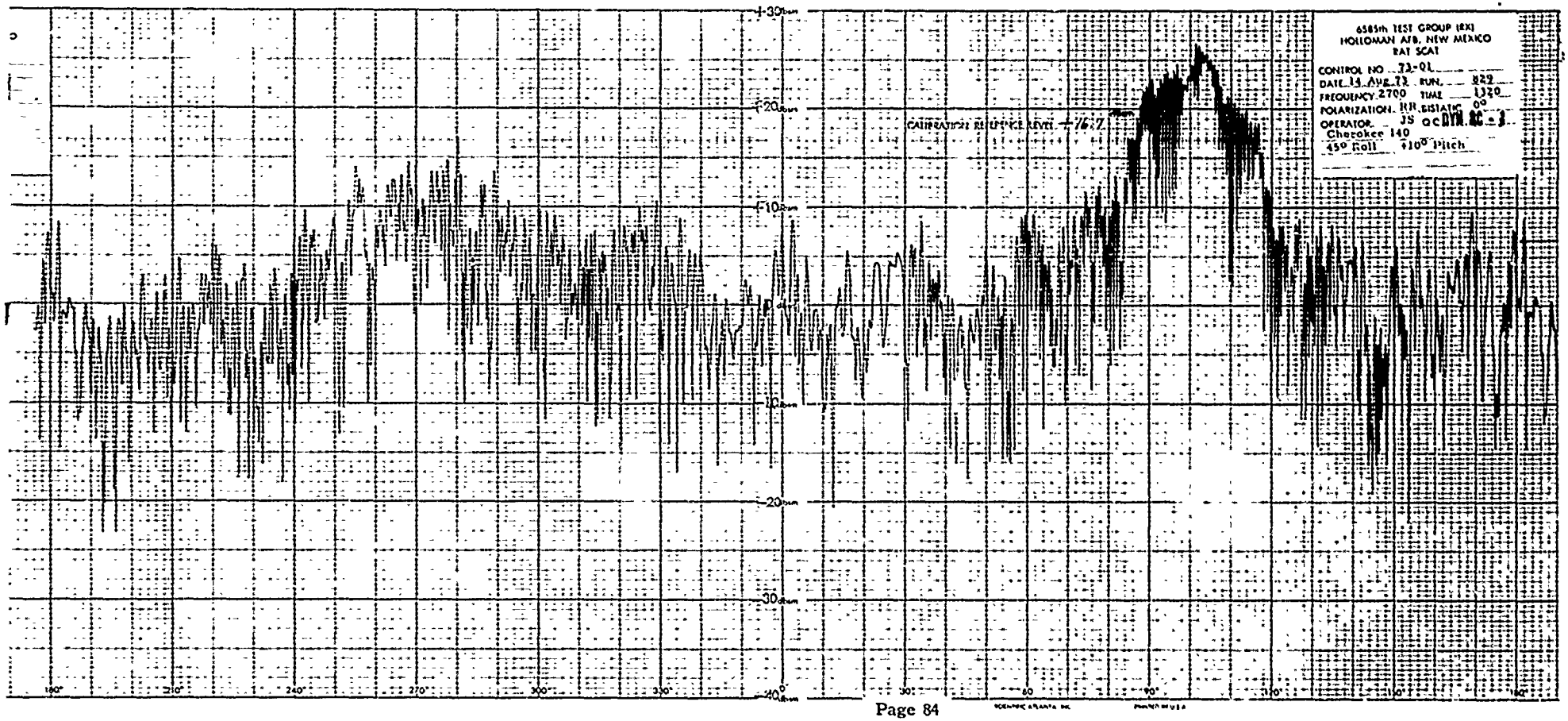

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 826
FREQUENCY 2700 TIME 1140
POLARIZATION RR BISTATIC 0°
OPERATOR JS OCL CC-1
Cherokee 150
300 Roll ±10° Pitch
+30dbsm
+20dbsm
+10dbsm
0dbsm
-10dbsm
-20dbsm
-30dbsm
-40dbsm
180°
210°
240
270
300
330
0°
30°
60°
90°
120°
150°

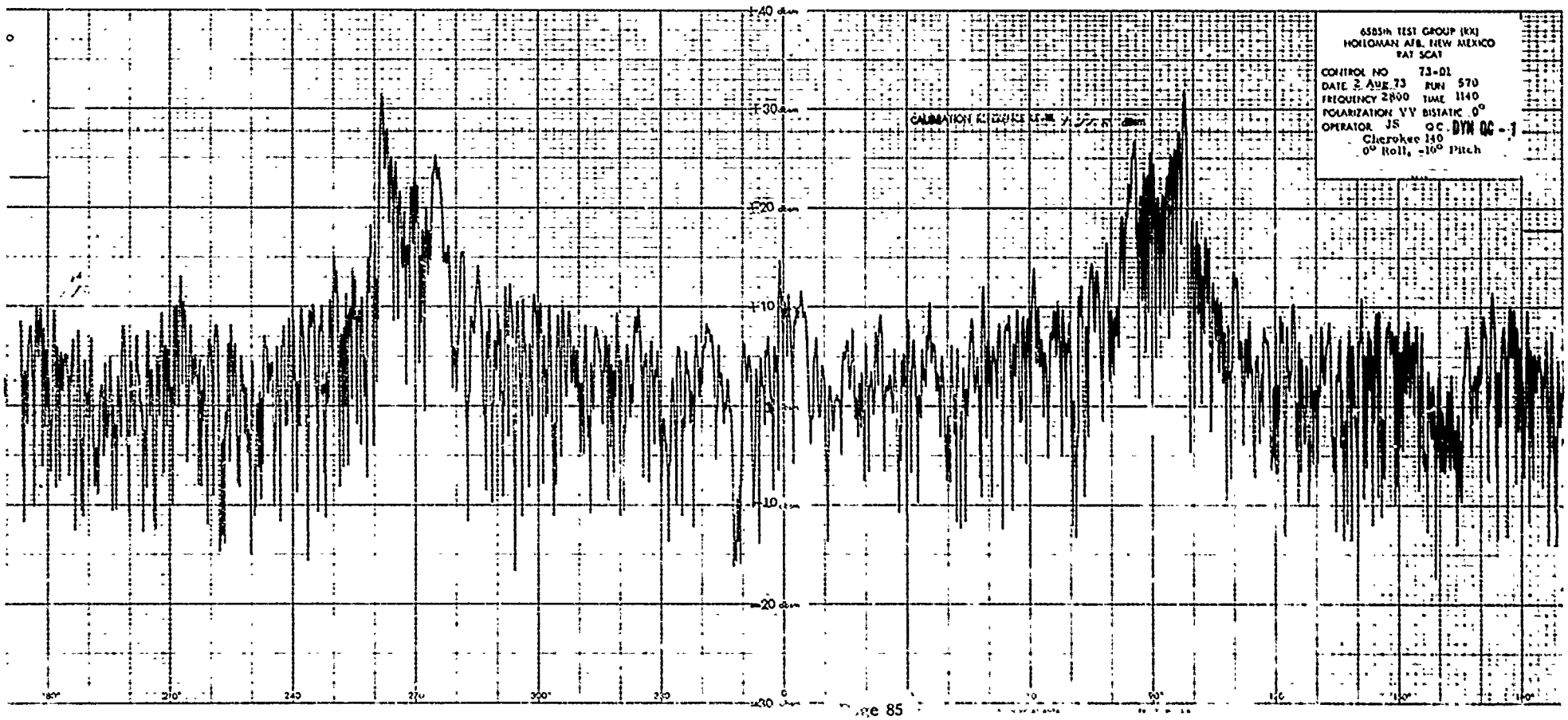

ASESmh TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 876
FREQUENCY 2730 TIME 1240
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC--1
Cherokee 140
45° Roll -19° Pitch
+30
+20
+10
0
-10
-20
-30
60
120
180
240
300
360
30
60
90
120
150
180

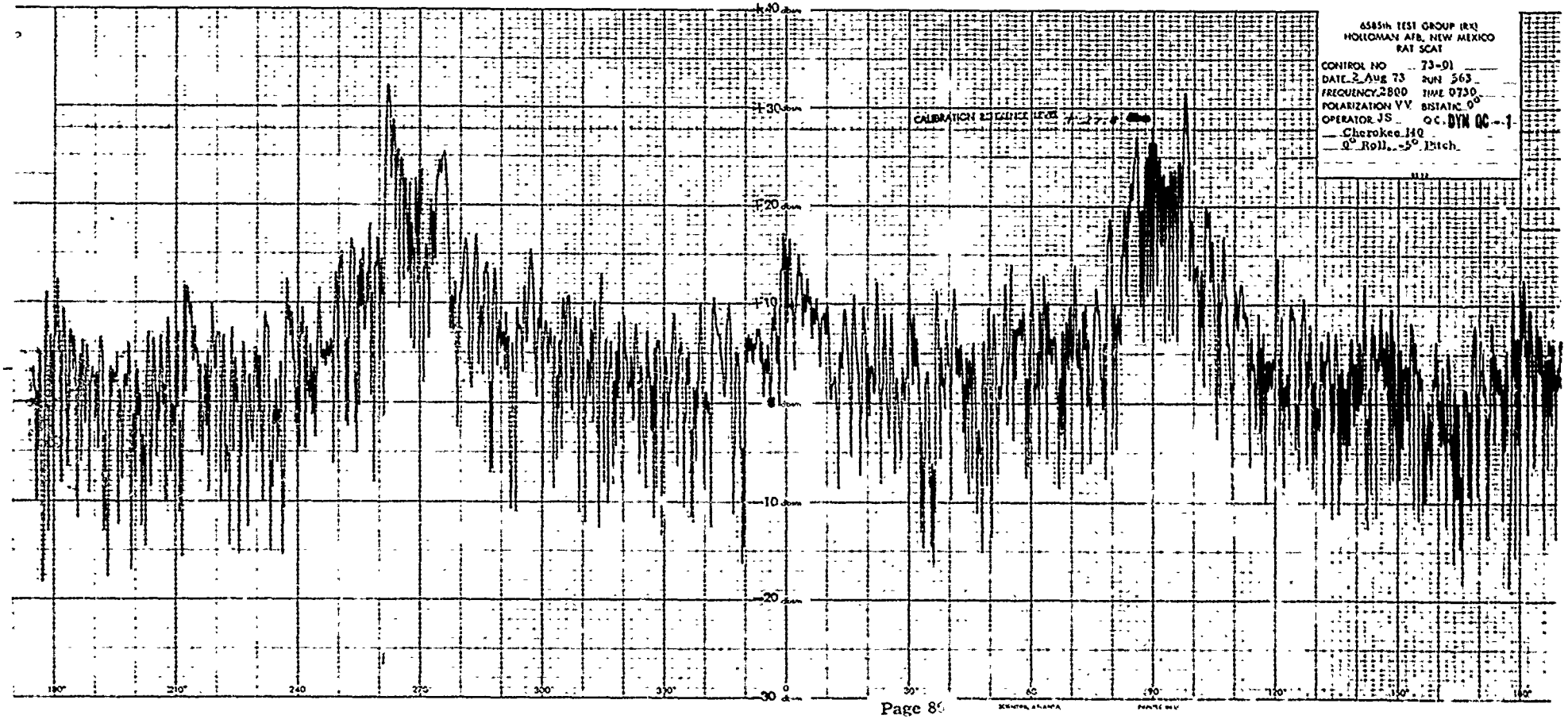

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAI SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 665
FREQUENCY 2700 TIME 0810
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1-
Cherokee 140
15° Roll -5° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300
330°
0
30°
60°
90°
120
150°
180°

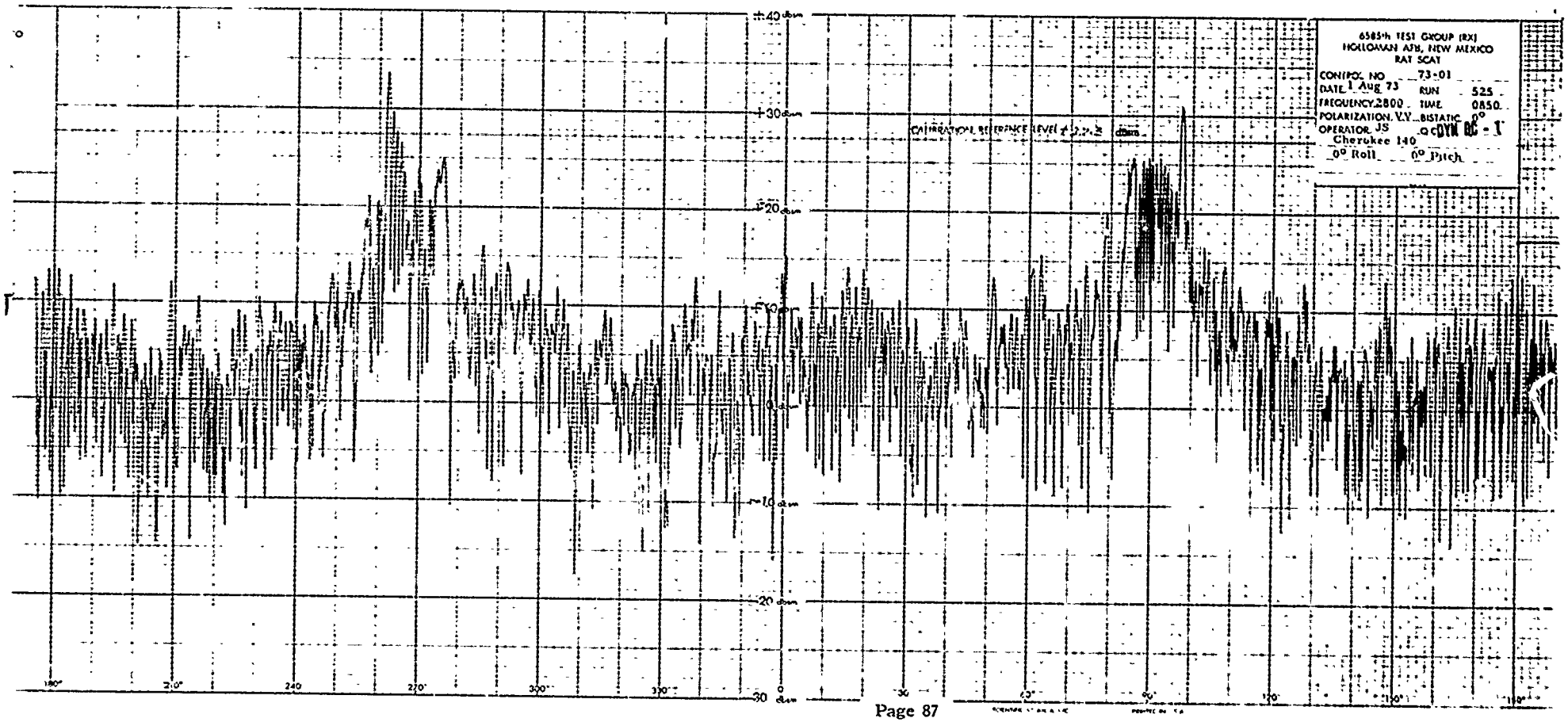

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 14 AUG 73 RUN 844
FREQUENCY 2700 TIME 1810
POLARIZATION HH BISTATIC 0°
OPERATOR AIM QC DYN QC - 1
Cherokee 140
45° Roll 0° Pitch
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240
270
300
330°
0
30
60
90
120
150°
180°

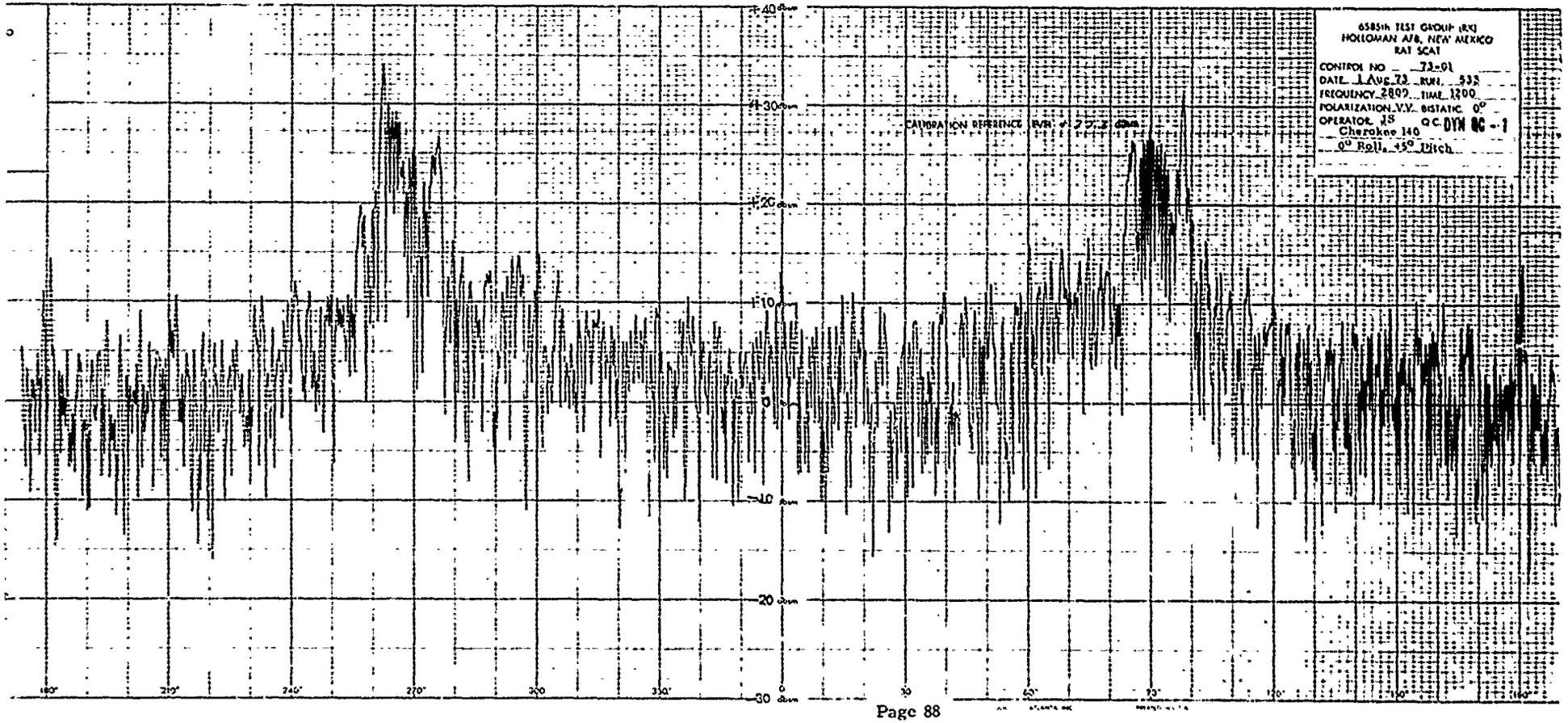

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 837
FREQUENCY 2700 TIME 1605
POLARIZATION RR BISTATIC 0°
OPERATOR MM QC DYN QC - 1
Cherokee 140°
-45° Roll +5° Pitch
CALIBRATION REFERENCE LEVEL -16.7
-30 dbsm
-20 dbsm
-10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30
60
90
120
150°
180°

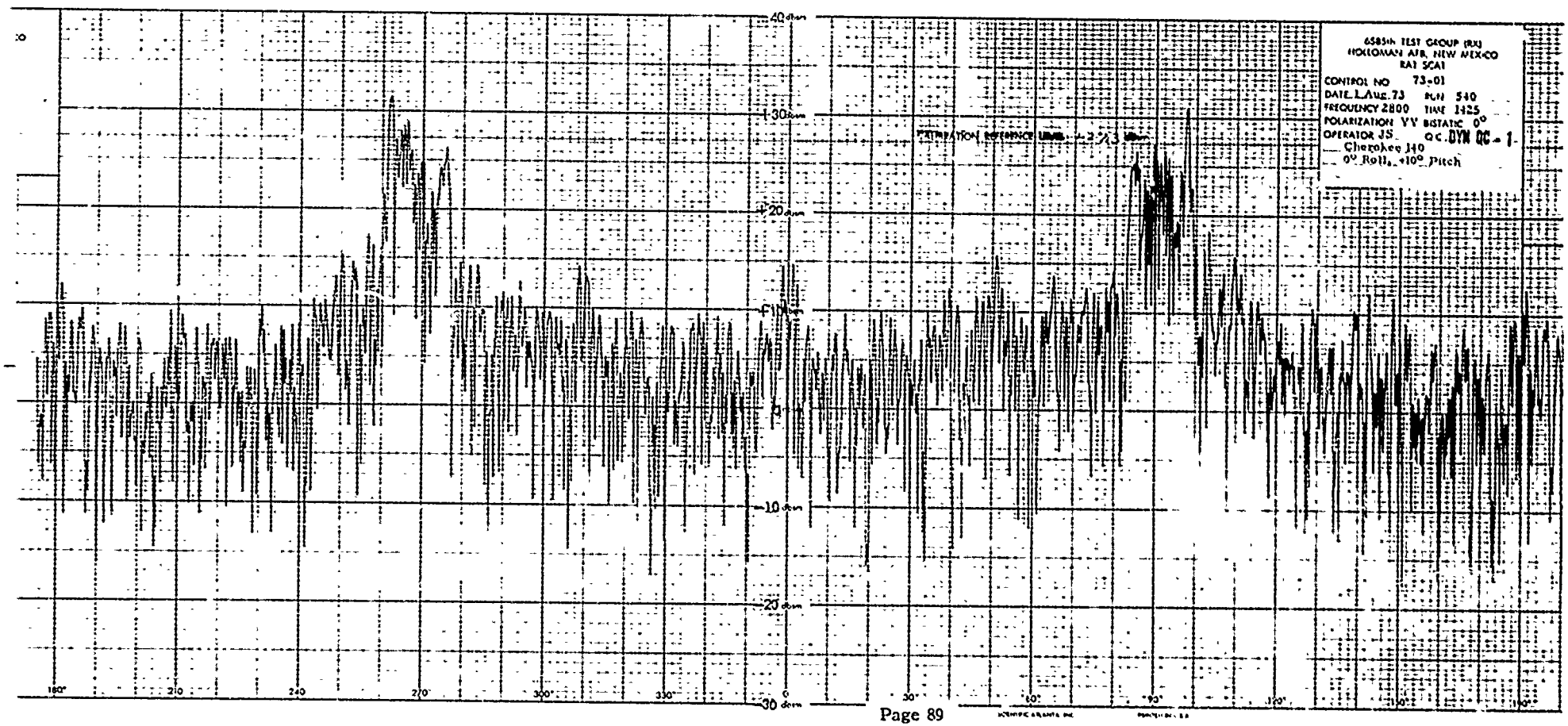

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 14 AUG 73 RUN 822
FREQUENCY 2700 TIME 1320
POLARIZATION RR ELEVATION 00
OPERATOR JS
Cherokee 140
45° Roll +10° Pitch
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
-40 dBsm
180°
210°
240°
270°
300°
330°
30°
60°
90°
120°
150°
180°

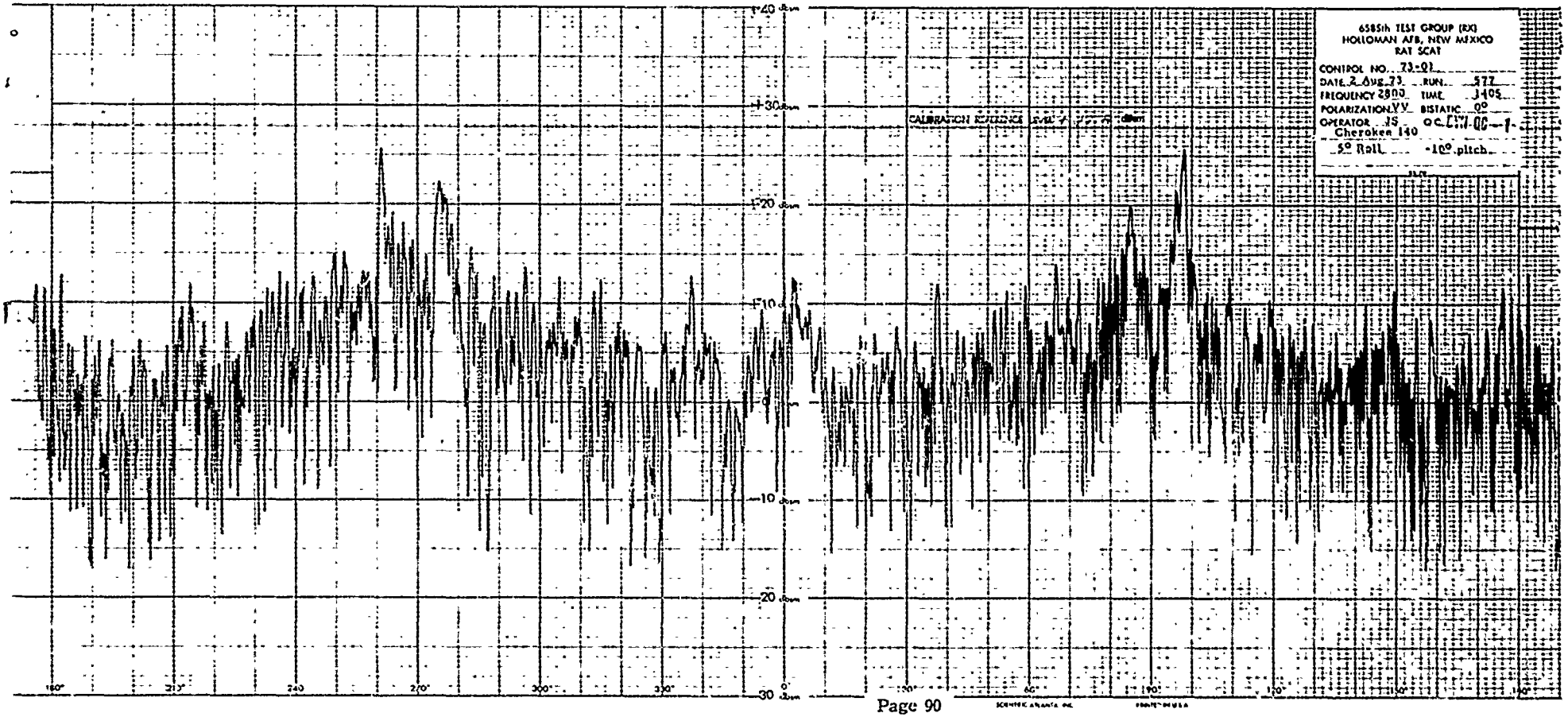

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
PAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 570
FREQUENCY 2800 TIME 1140
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC -1
Cherokee 140
0° Roll, -10° Pitch
-40 dbsm
-30 dbsm
-20 dbsm
-10 dbsm
-20 dbsm
180°
210°
240
270
300°
330
0
30
90°
120
150°
180°

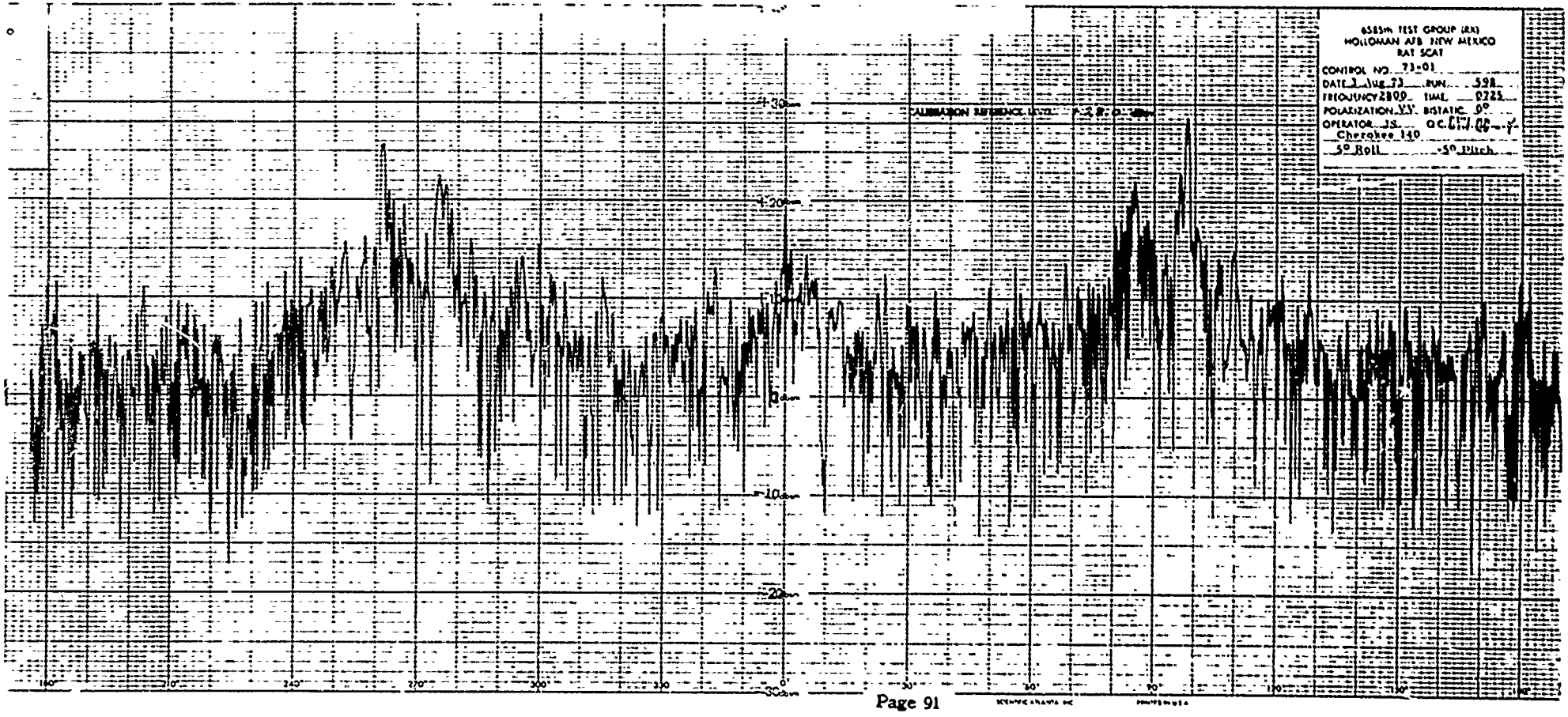

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 563
FREQUENCY 2800 TIME 0730
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee HO
0° Roll, -5° Pitch
CALIBRATION REFERENCE LEVEL
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240
270°
300°
330°
0°
30°
60
90°
120°
150°
180°

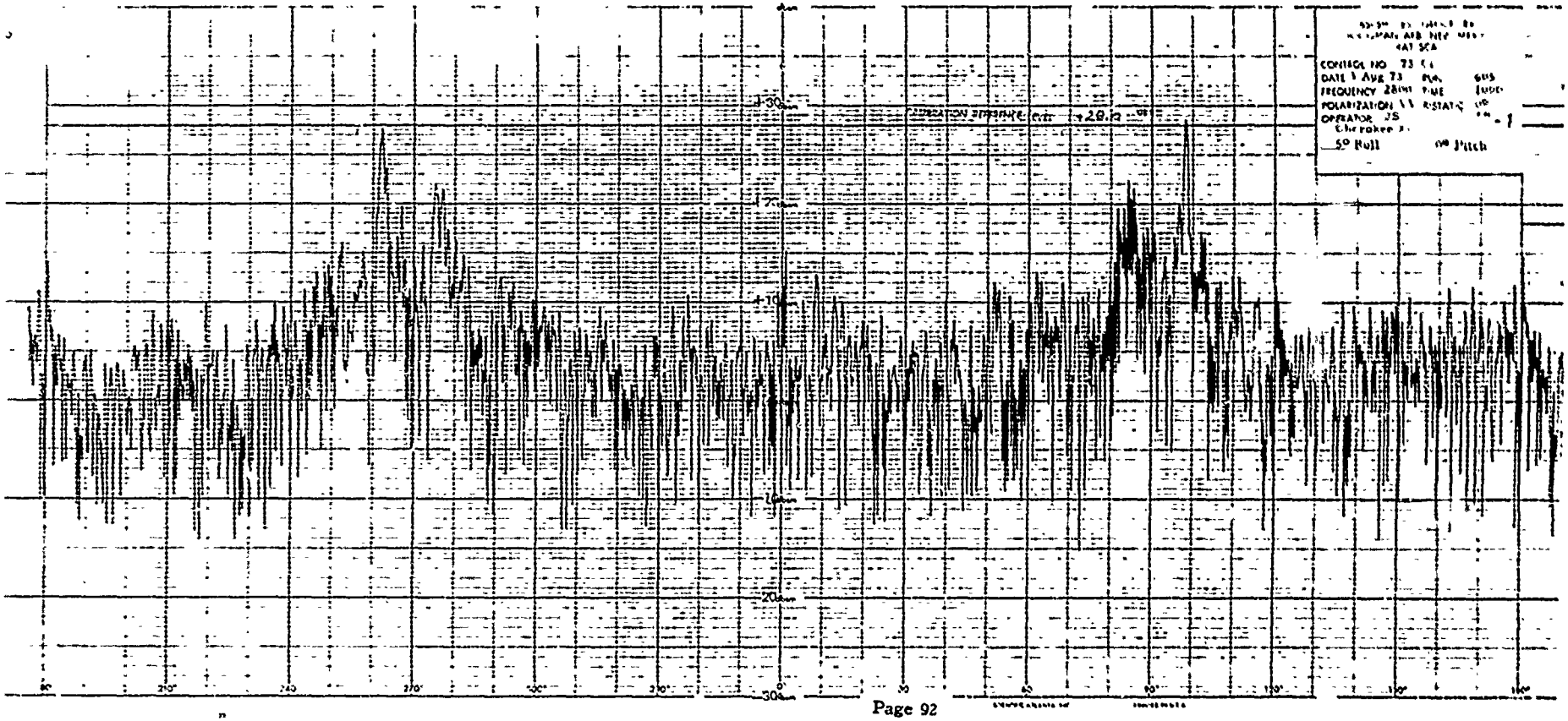

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONFIG. NO 73-01
DATE 1 Aug 73 RUN 525
FREQUENCY 2800 TIME 0850
POLARIZATION V-V BISTATIC 0°
OPERATOR JS
Cherokee 140
0° Roll 0° Pitch
CALIBRATION REFERENCE LEVEL
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
30
60°
90°
120°
150°
180°

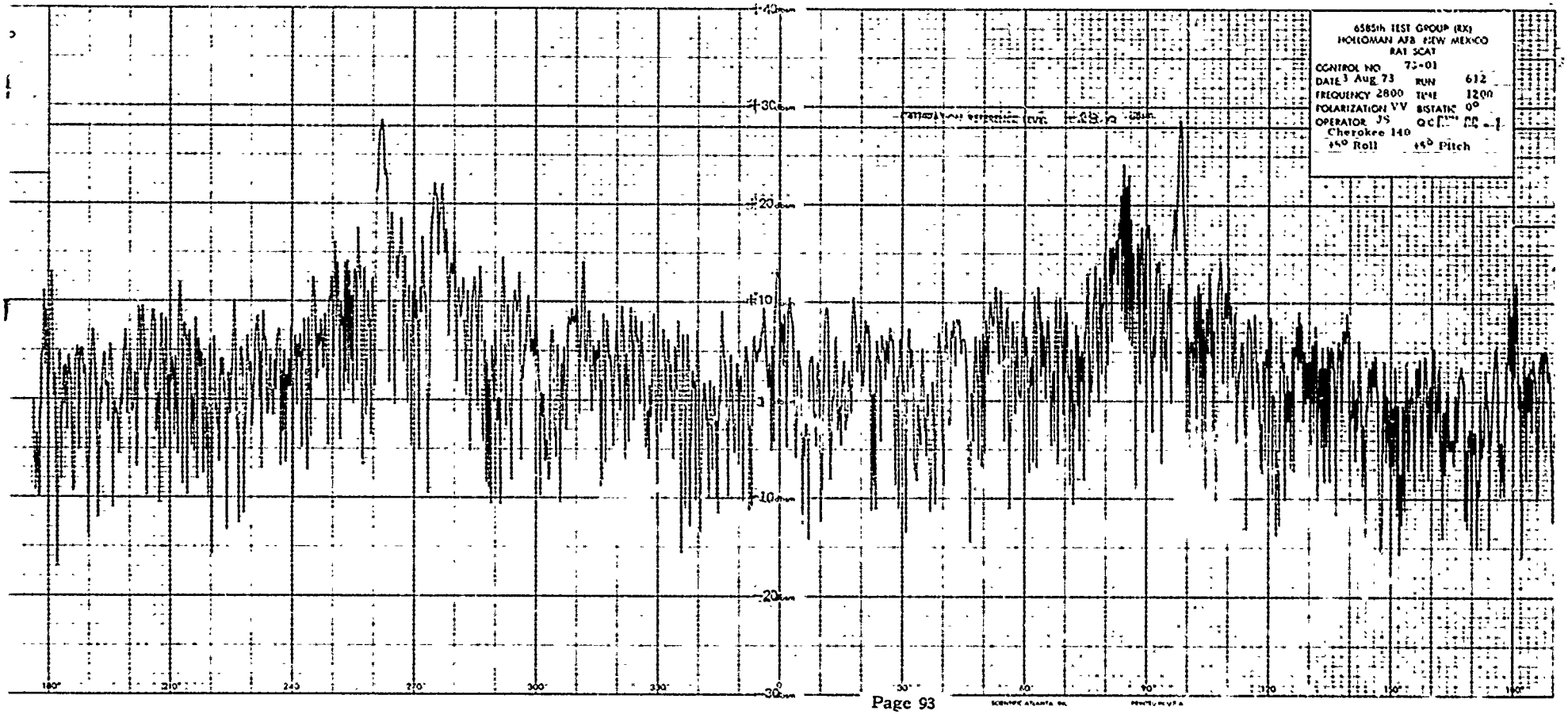

6585th TEST GROUP (RV)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 72-91
DATE 1 Aug 72 RUN 533
FREQUENCY 2809 TIME 1200
POLARIZATION V-V BISTATIC 0°
OPERATOR JS QC DYN RC - 1
Cherokee 140
0° Roll, 15° Pitch
CALIBRATION REFERENCE RVR = 77.2 dbsm
+40 dbsm
+30
+20
+10
0
-10
-20
-30 dbsm
180°
210°
240°
270°
300
330°
0
30
60°
90°
120°
150°
180°

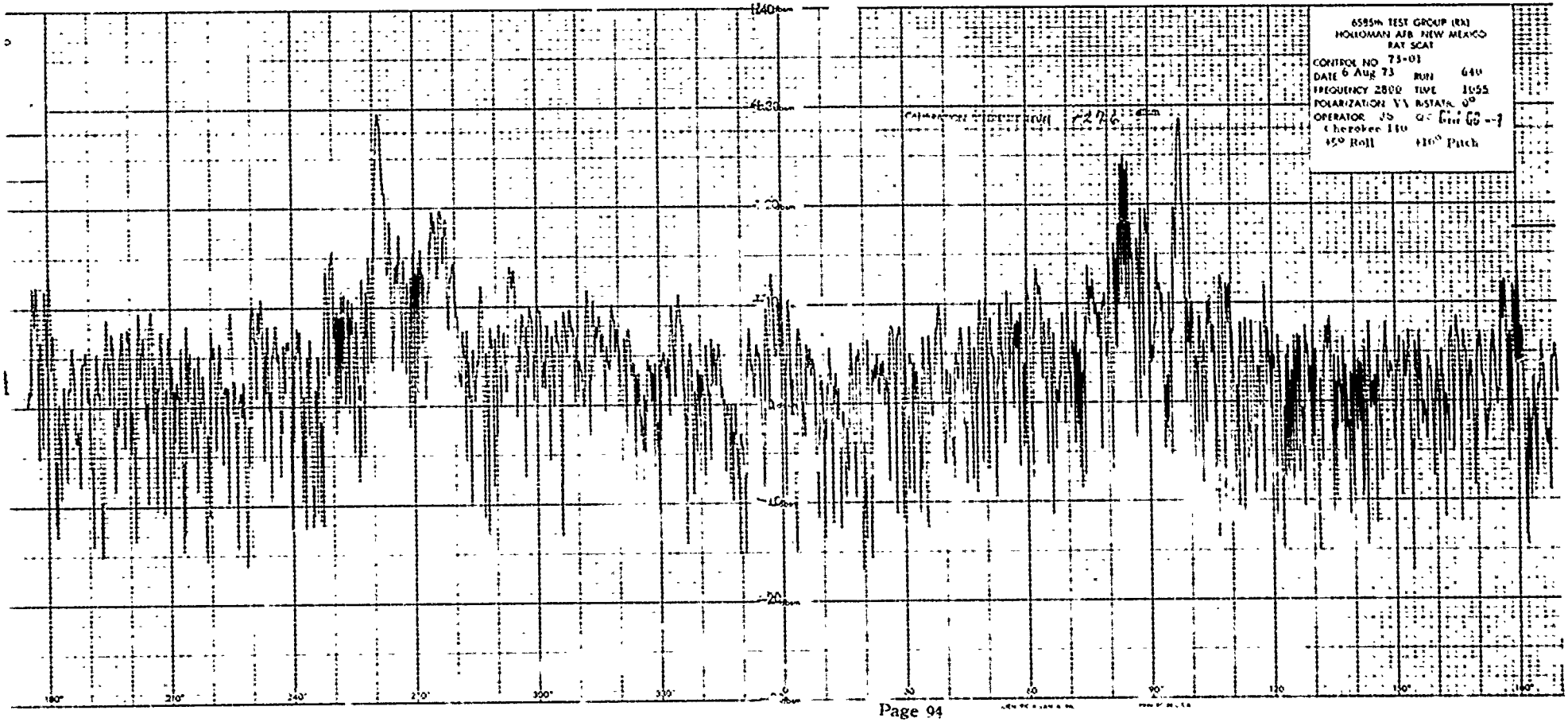

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 1 AUG 73 RUN 540
FREQUENCY 2800 TIME 1425
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
0° Roll, +10° Pitch
40 dbsm
30 dbsm
20 dbsm
10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210
240
270
300°
330°
0
30°
60°
90°
120°
150°
180°

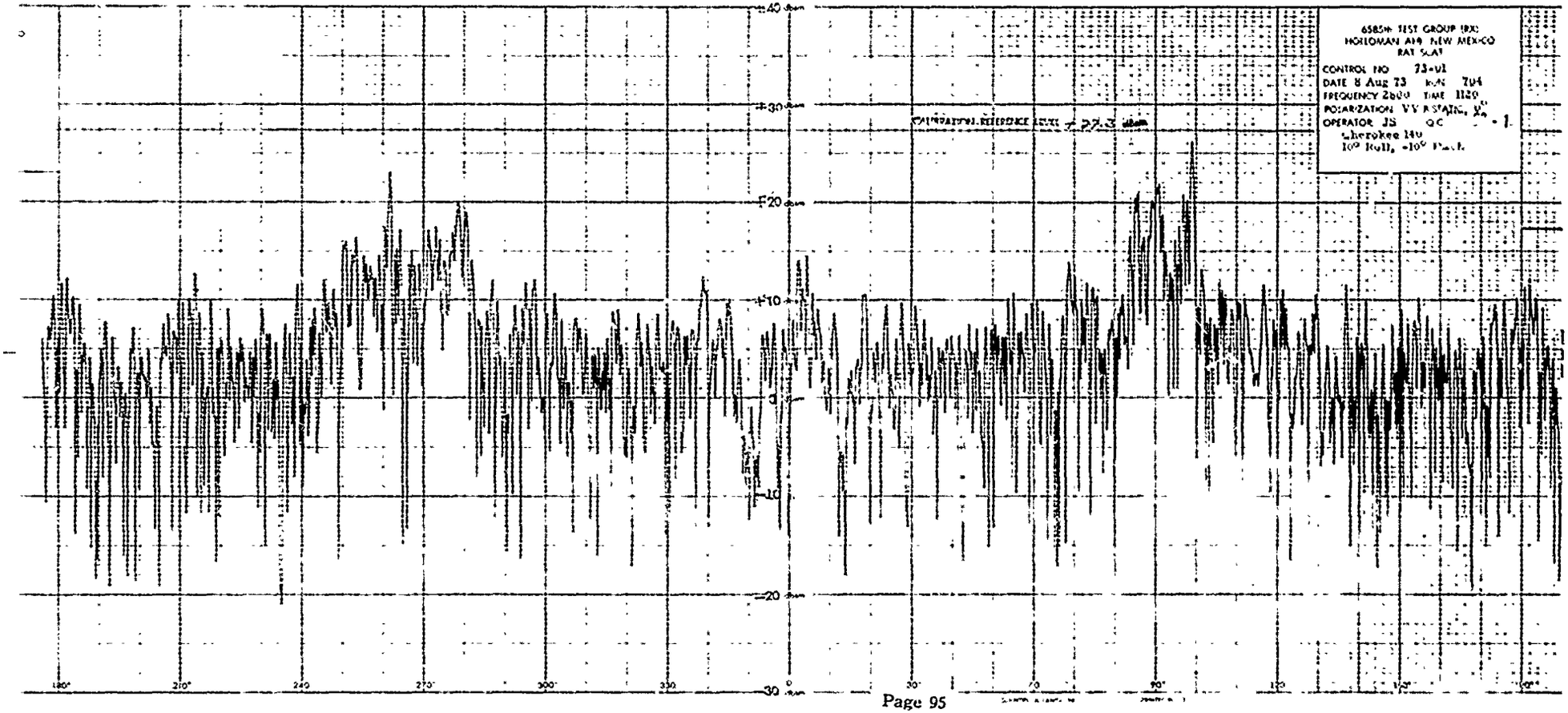

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-91
DATE 2 AUG 73 RUN 577
FREQUENCY 2800 TIME 1405
POLARIZATION VV BISTATIC 0°
OPERATOR JS OC DW-00-1
Cherokee 140
5° Roll +10° pitch
CALIBRATION REFERENCE LEVEL
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240
270°
300°
330°
30°
60°
90°
120°
150°

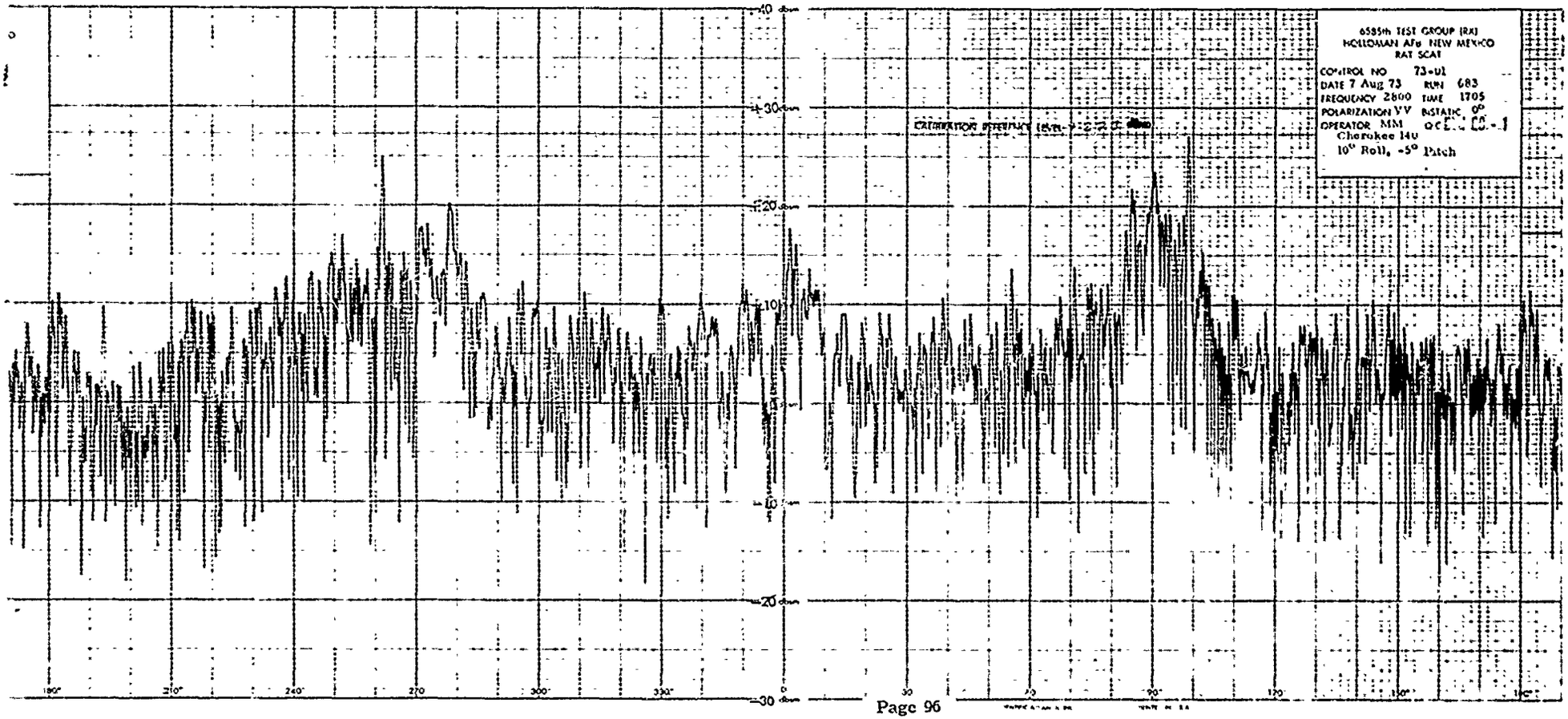

6585th TEST GROUP (AX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 3 Aug 73 RUN 598
FREQUENCY 2809 TIME 0225
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC
Cherokee 140
5° Roll -5° Pitch
CALIBRATION REFERENCE LEVEL
+30dBsm
+20dBsm
0dBsm
-10dBsm
-20dBsm
160°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°

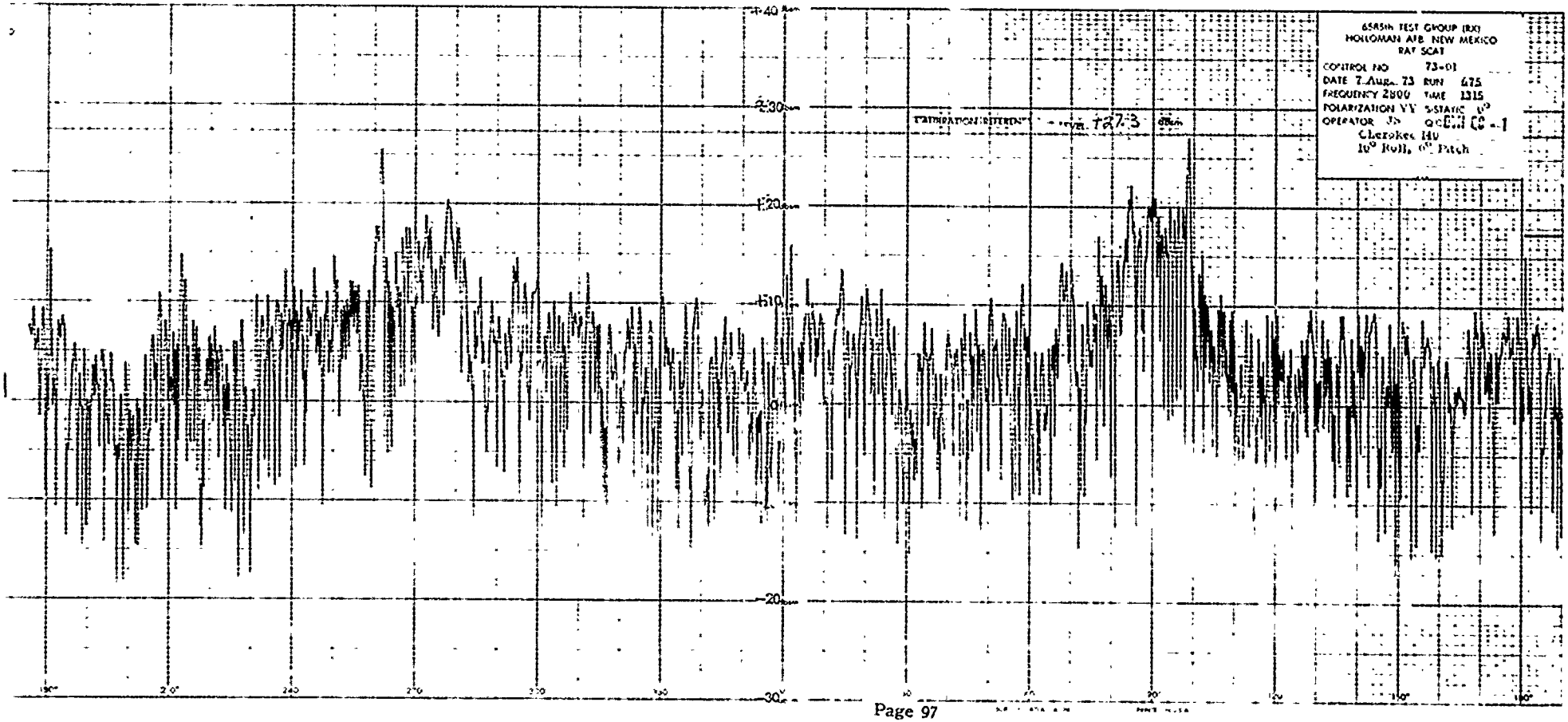

5° Roll
0° Pitch

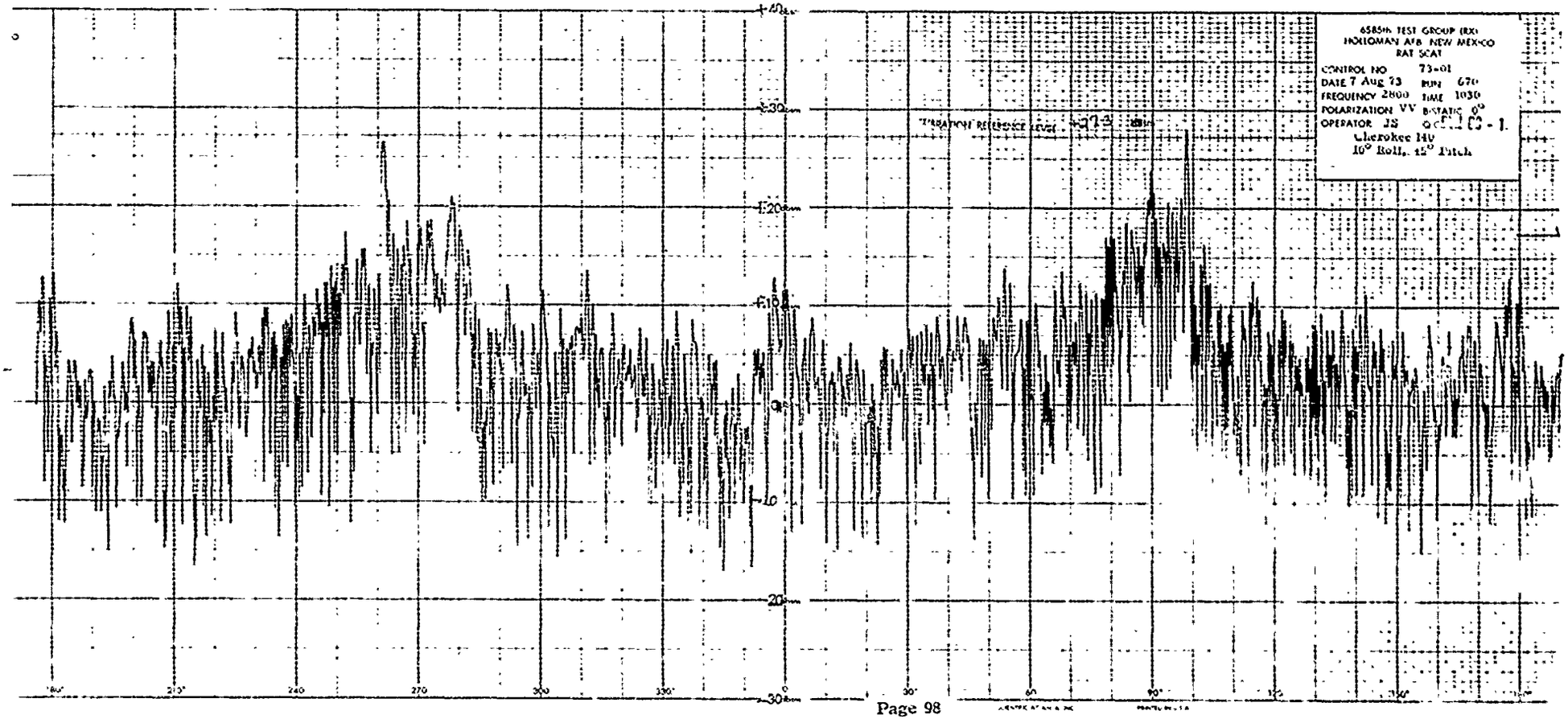

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73
RUN 612
FREQUENCY 2800
TIME 1200
POLARIZATION VV
BISTATIC 0°
OPERATOR JS
Cherokee 140
±5° Roll
±5° Pitch
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270°
300°
330°
30°
60°
90°
120
150°
180°

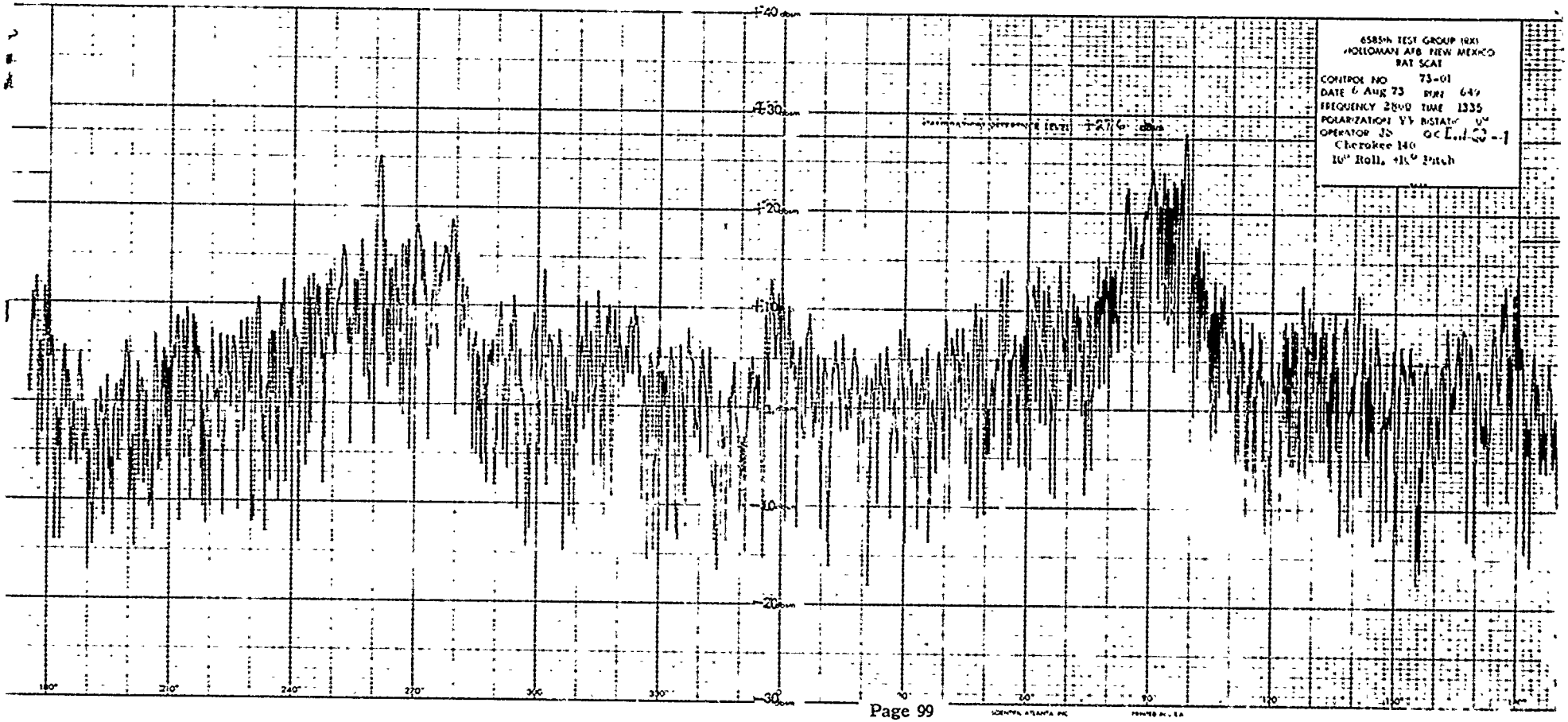

6595th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 6 Aug 73 RUN 640
FREQUENCY 2800 TIME 1055
POLARIZATION VV BISTATIC 0°
OPERATOR JS
Cherokee 180
45° Roll +10° Pitch

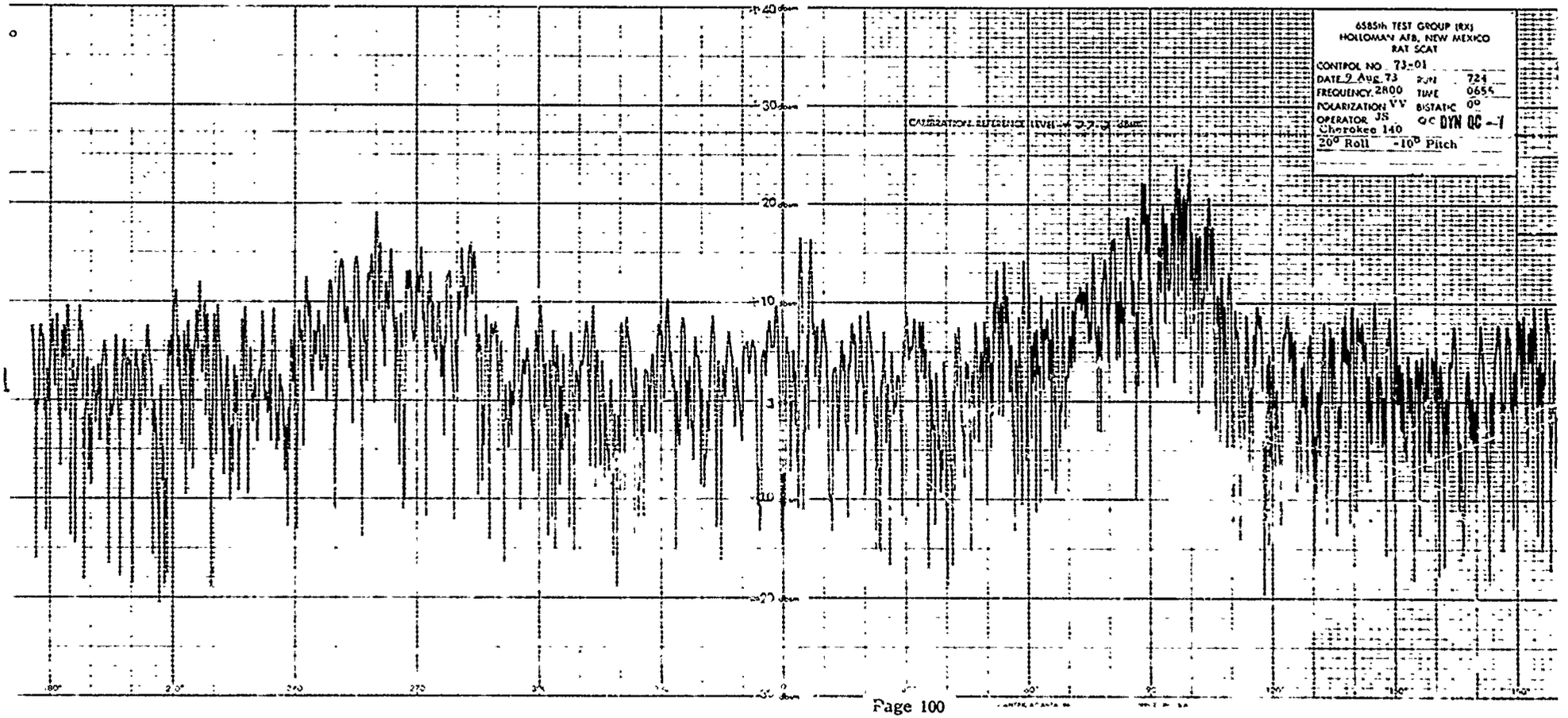

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 8 Aug 73
FREQUENCY 2800
POLARIZATION VV
OPERATOR JS QC
Cherokee 140
10° Roll, -10° Pitch
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270°
300°
330
0
30°
60
90°
120
150°
180°

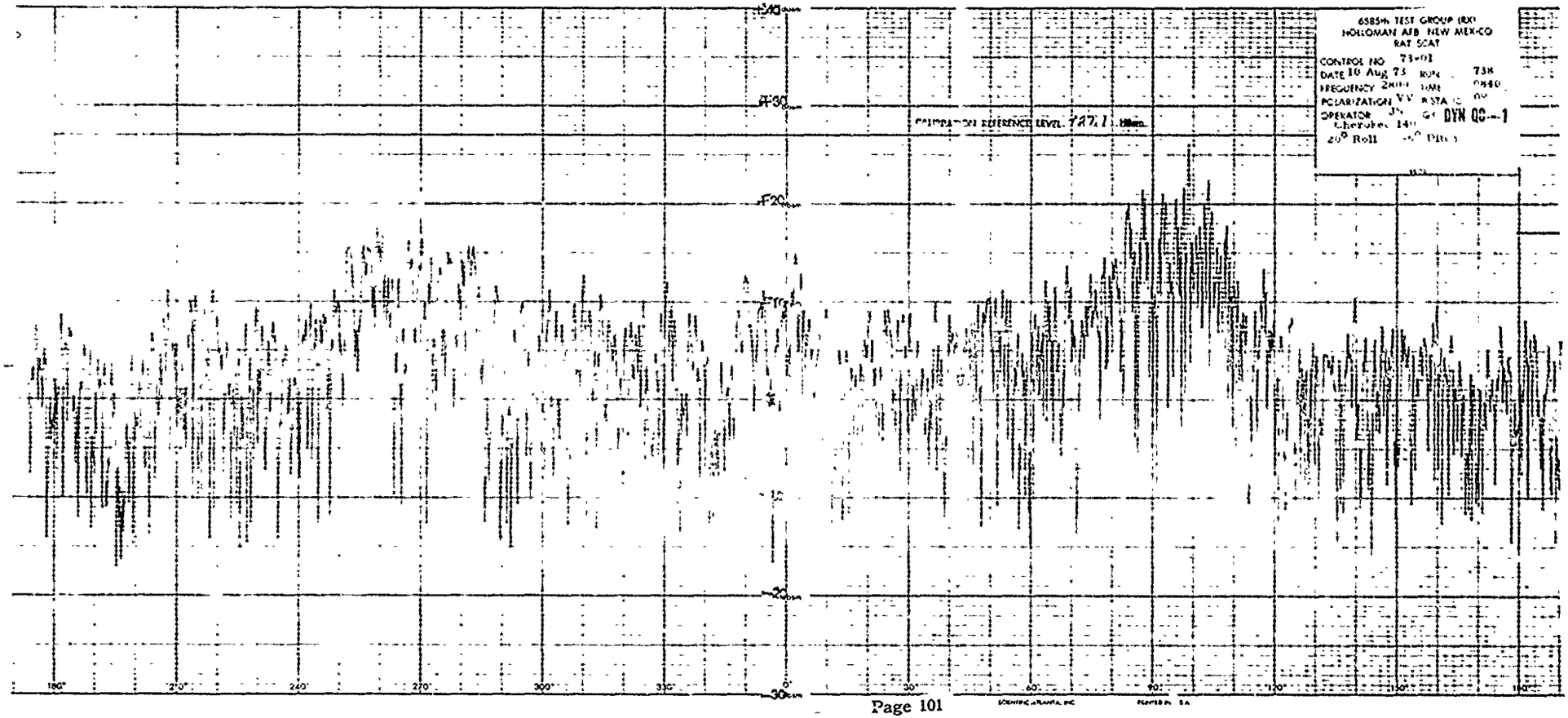

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 683
FREQUENCY 2800 TIME 1705
POLARIZATION VV BISTATIC 0°
OPERATOR MM
Cherokee 14u
10° Roll, -5° Pitch
CALIBRATION REFERENCE LEVEL
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270
300°
330°
0
30
60
90°
120
150°
180°

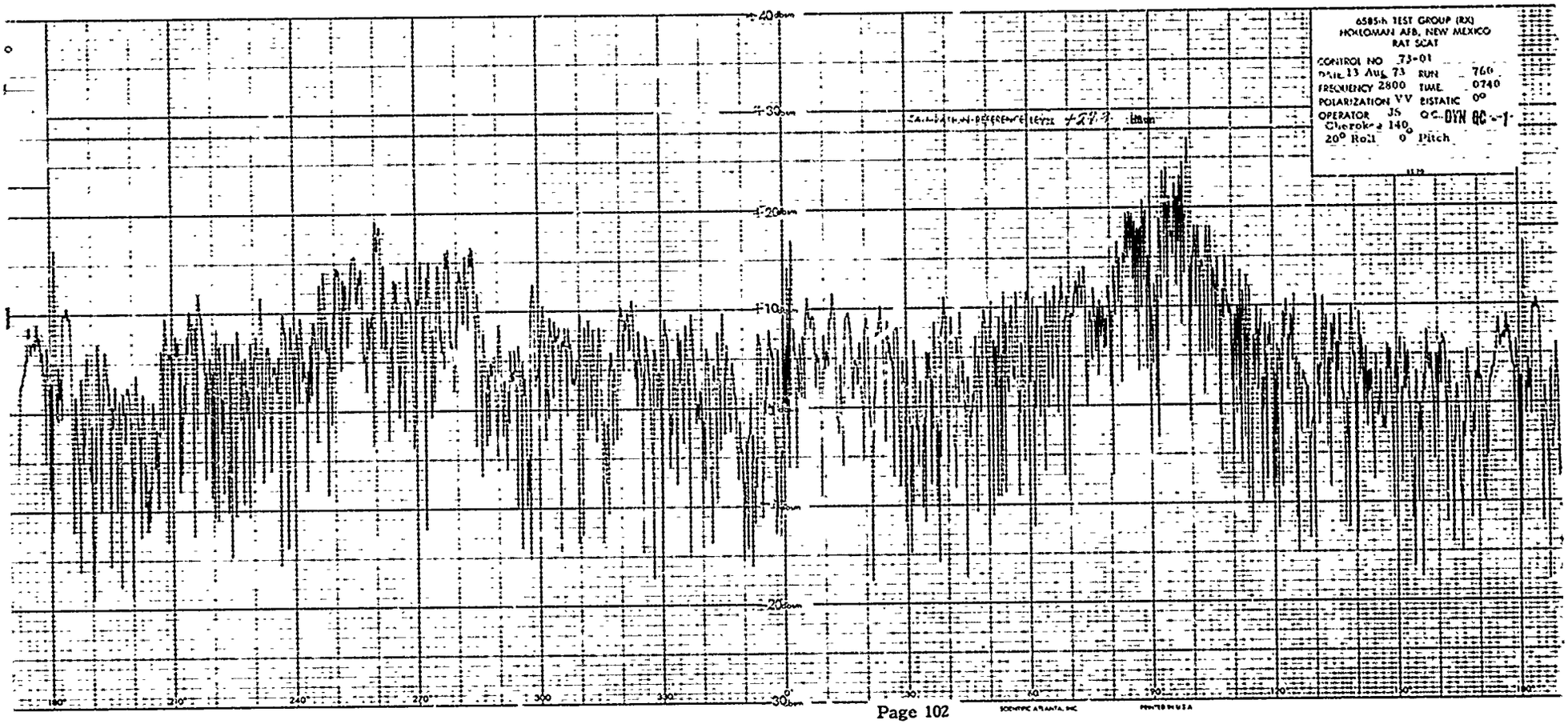

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug. 73 RUN 475
FREQUENCY 2800 TIME 1315
POLARIZATION VV S-STATIC 0°
OPERATOR JS QC
Cherokee 140
10° Roll, 0° Patch
-40
-30
-20
-10
0
10
20
30
180°
210°
240
270
300
330
360
10
20
30
120
150
180°

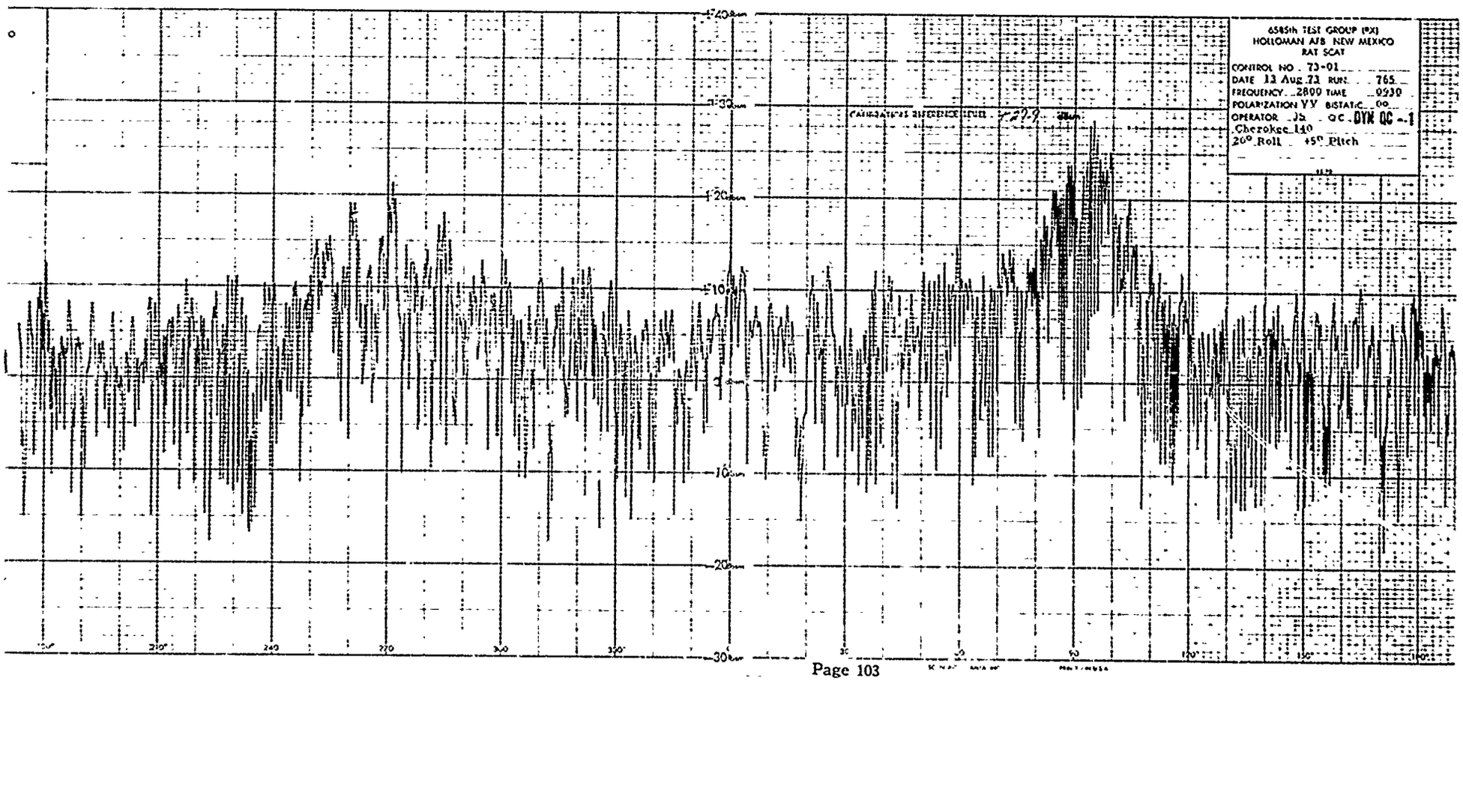

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 670
FREQUENCY 2800 TIME 1030
POLARIZATION VV BISTATIC 0°
OPERATOR JS
Cherokee 140
10° Roll, 15° Pitch
-30
-20
-10
0
10
20
30
60
90
240
270
300
330

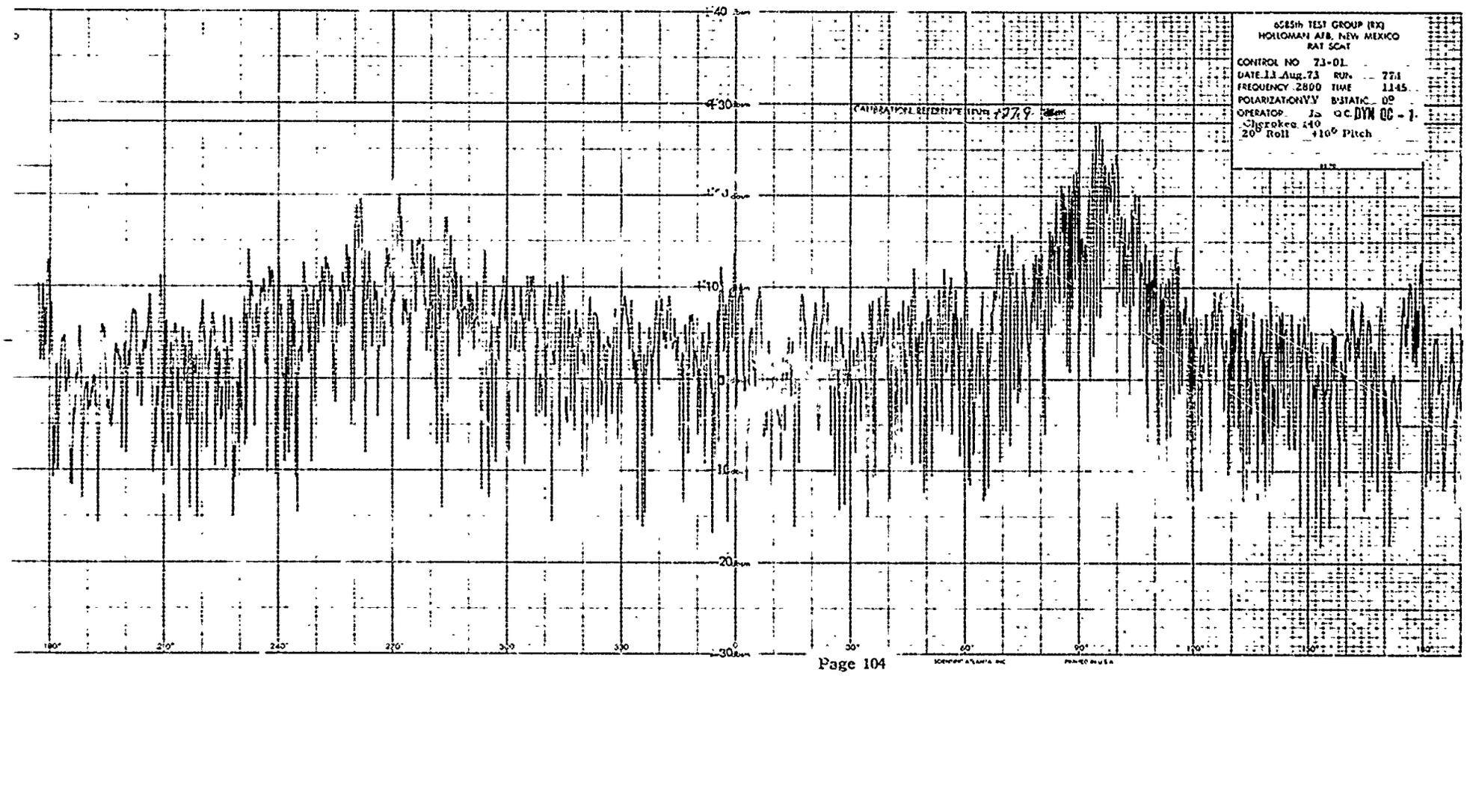

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 6 Aug 73 RUN 649
FREQUENCY 2800 TIME 1335
POLARIZATION VV BISTATIC 0°
OPERATOR JS GC L-1-60 -1
Cherokee 140
10° Roll, +15° Pitch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0
-10
-20
-30
180°
210°
240°
270°
300
330°
0°
30°
90°
120°
150°

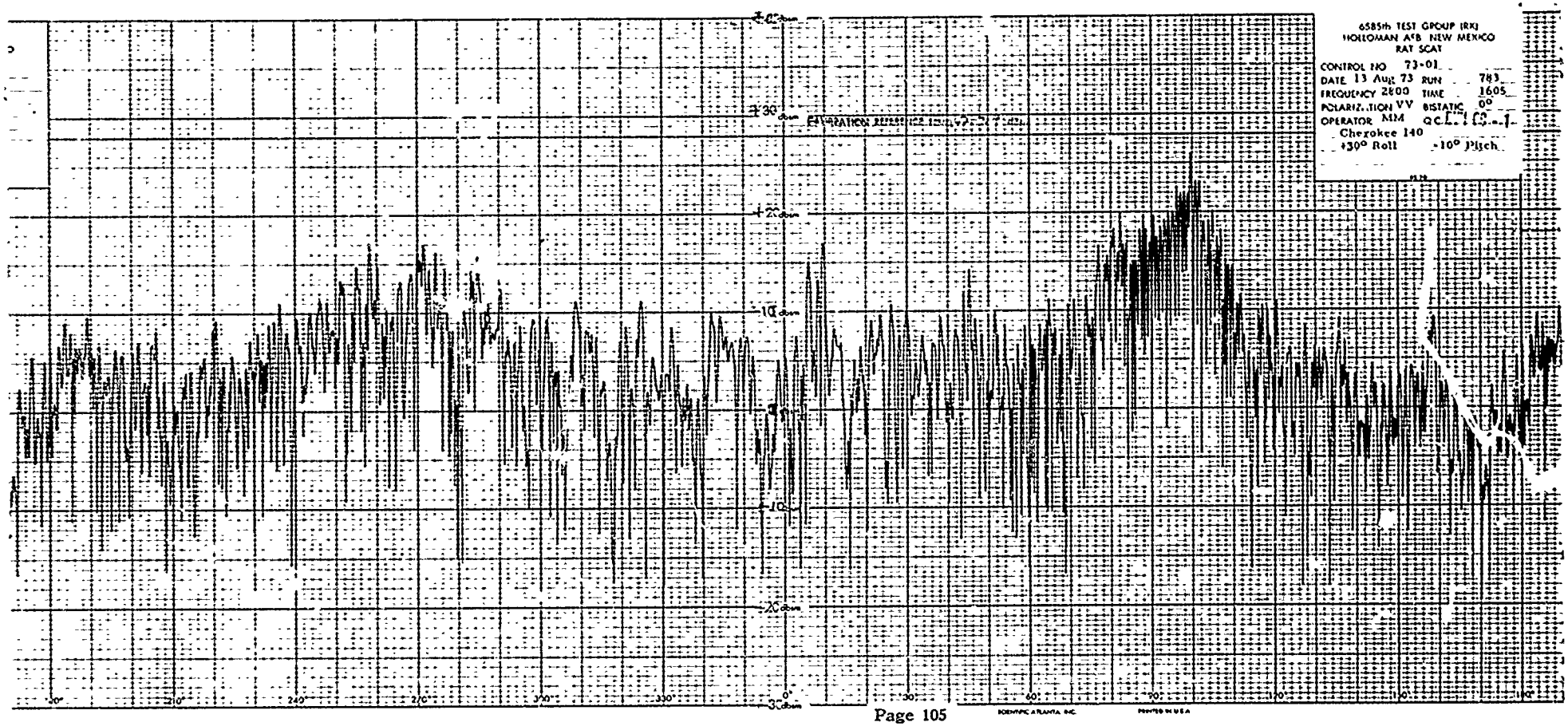

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 2 Aug. 73
RUN 724
FREQUENCY 2800
TIME 0655
POLARIZATION VV
BISTATIC 0°
OPERATOR JS
QC DYN QC -1
Cherokee 140
20° Roll -10° Pitch
CALIBRATION REFERENCE LEVEL
-40 dBsm
-30 dBsm
-20 dBsm
-10 dBsm
0 dBsm
-20 dBsm
180°
270°
90°

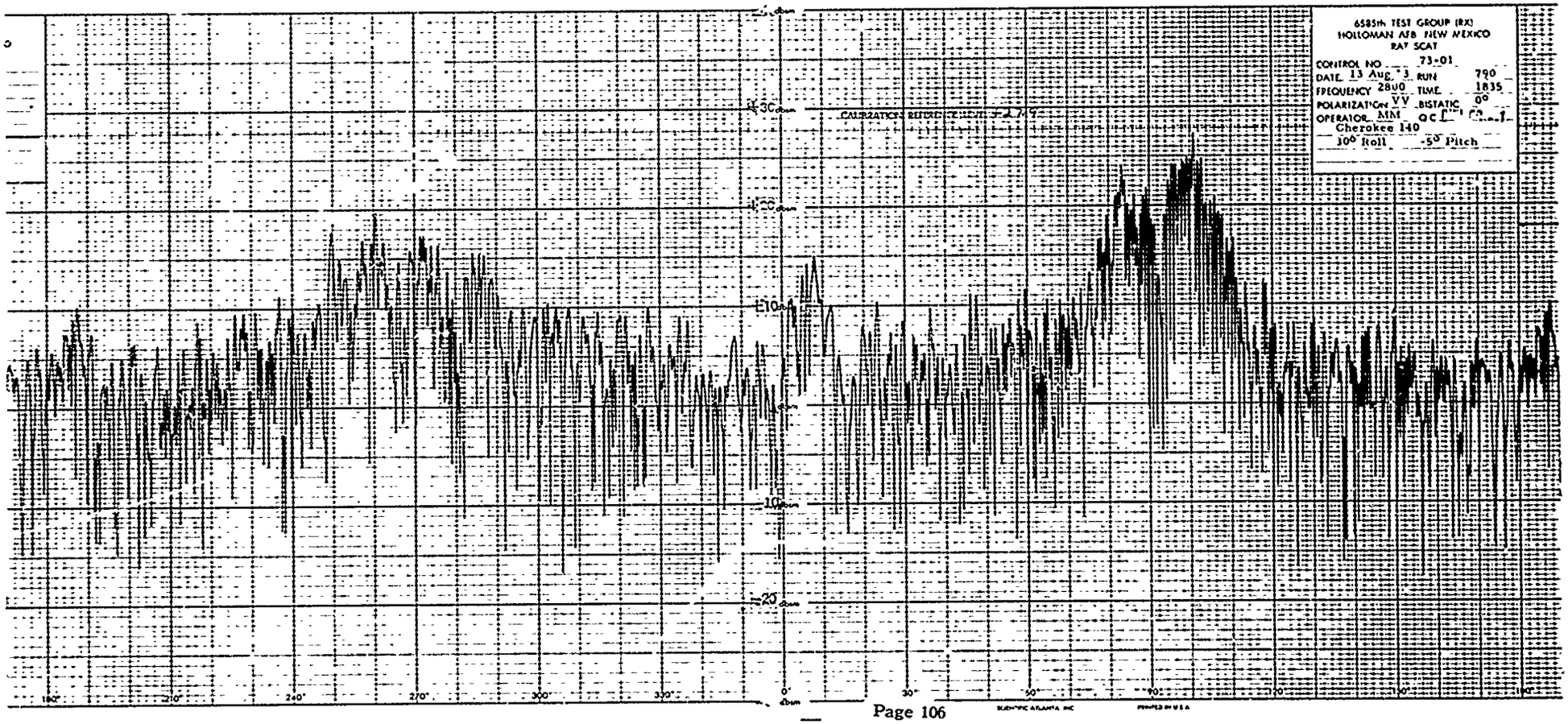

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 10 Aug 73 RUN 738
FREQUENCY 2GHz TIME 0840
POLARIZATION VV ROTATE 00
OPERATOR JS GC DYN QC--1
Cherokee 140
20° Roll -0° Pitch
CALIBRATION REFERENCE LEVEL 727.1 dBsm
-30dBsm
-20
-10
0
10
20dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

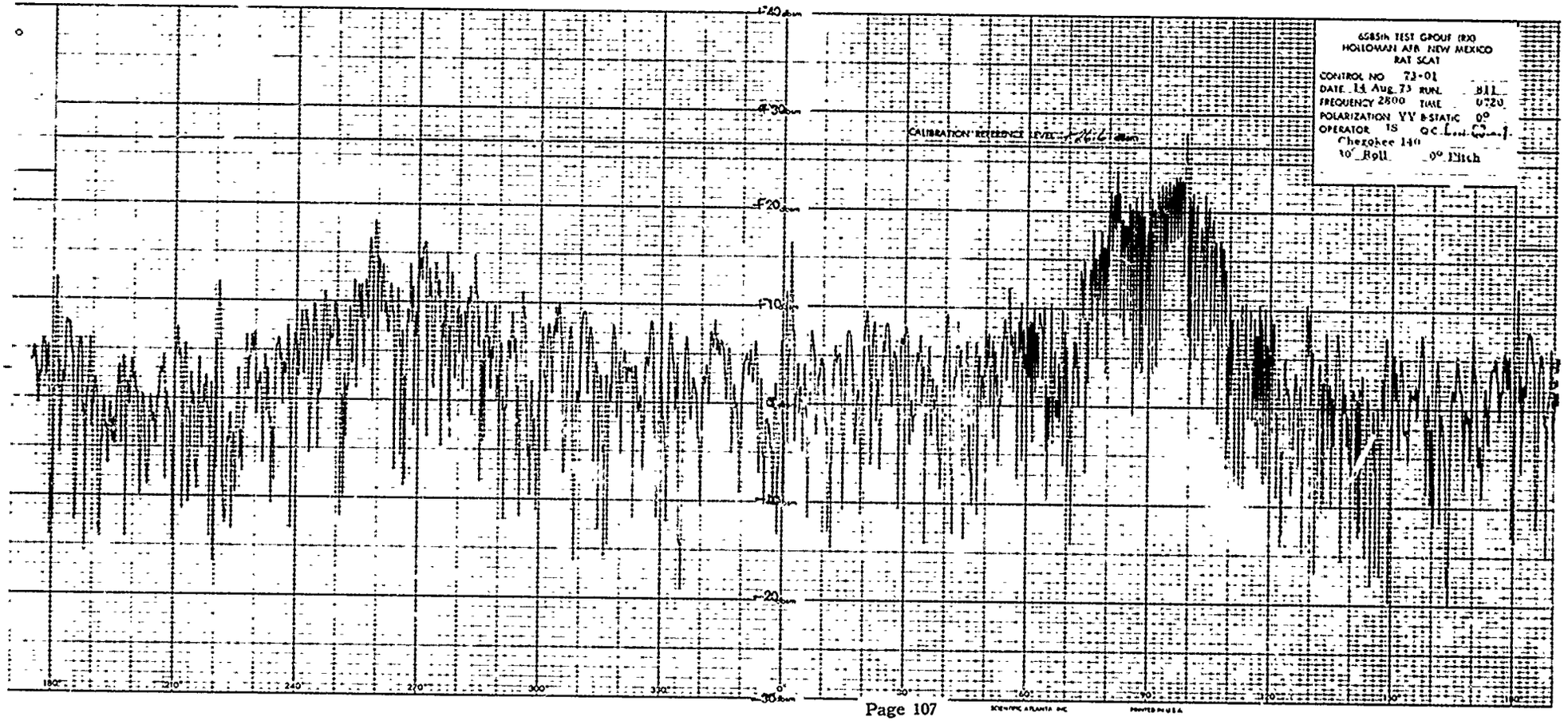

6585-h TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 766
FREQUENCY 2800 TIME 0740
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC-DYN QC-1
Cherokee 140°
20° Roll 0° Pitch
+40dbsm
+30dbsm
+20dbsm
+10dbsm
0dbsm
-10dbsm
-20dbsm
-30dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

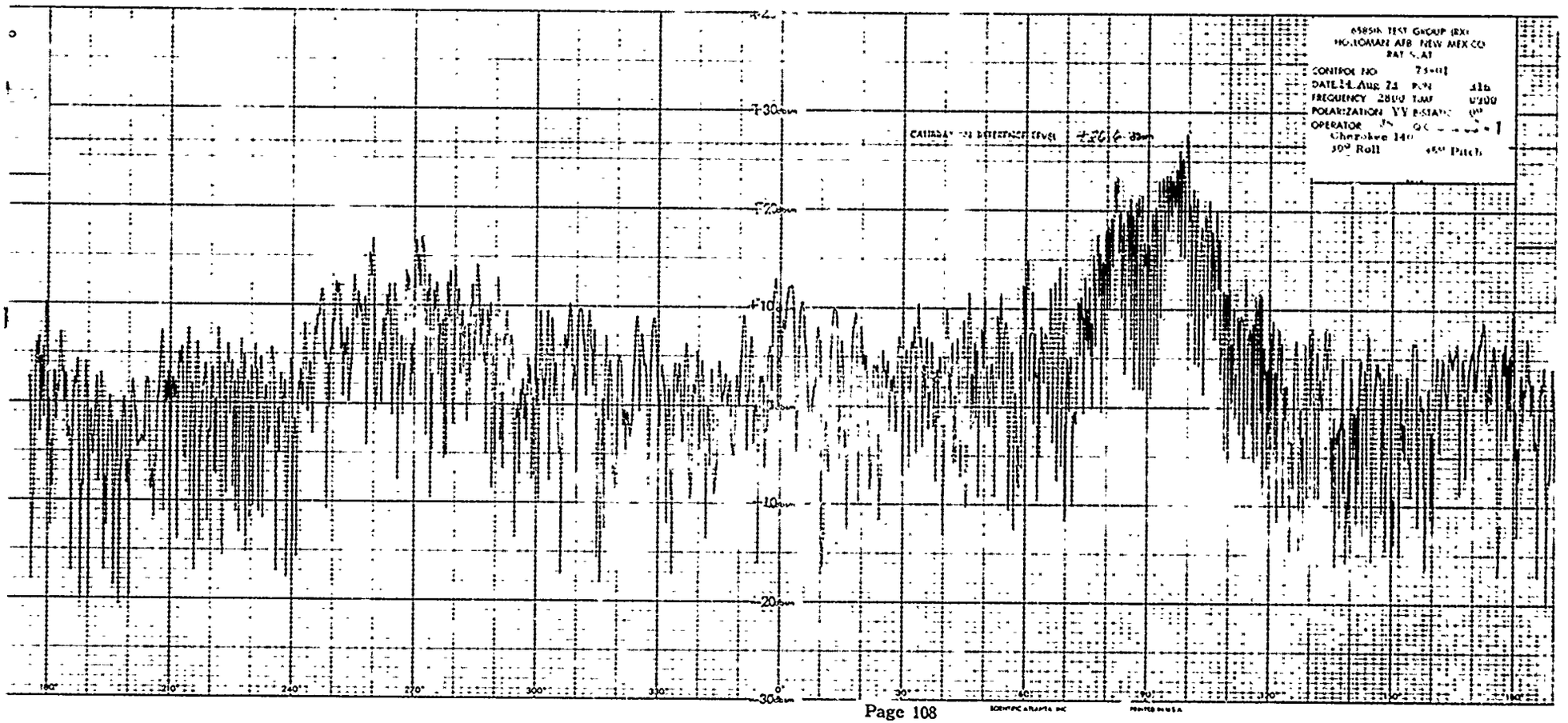

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 13 Aug 73 RUN 765
FREQUENCY 2800 TIME 0930
POLARIZATION VV BISTATIC 00
OPERATOR JS QC DYN QC -1
Cherokee 140
20° Roll +5° Pitch
+40
+30
+20
+10
0
-10
-20
-30
210°
240
270
300
330
30
50
70
90

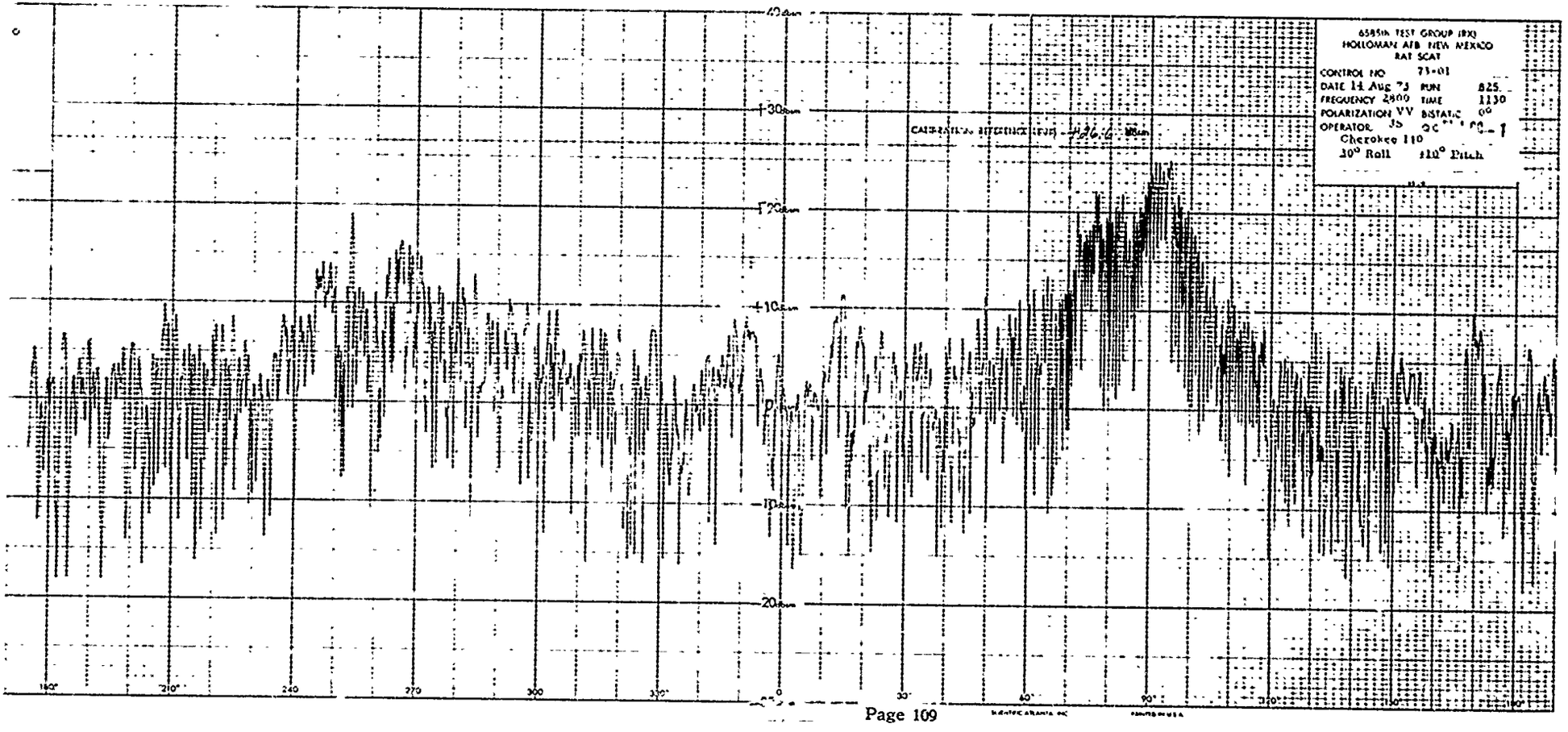

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 77.1
FREQUENCY 2800 TIME 1145
POLARIZATION VV BISTATIC 0°
OPERATOR Jo Q.C. DYN QC - 1
Cherokee 140
20° Roll +10° Pitch
CALIBRATION REFERENCE LEVEL 77.9
+40
+30
+10
0
-10
-20
-30
180°
210°
240°
270°
300
330
30°
60°
90°
120°
150°
180°

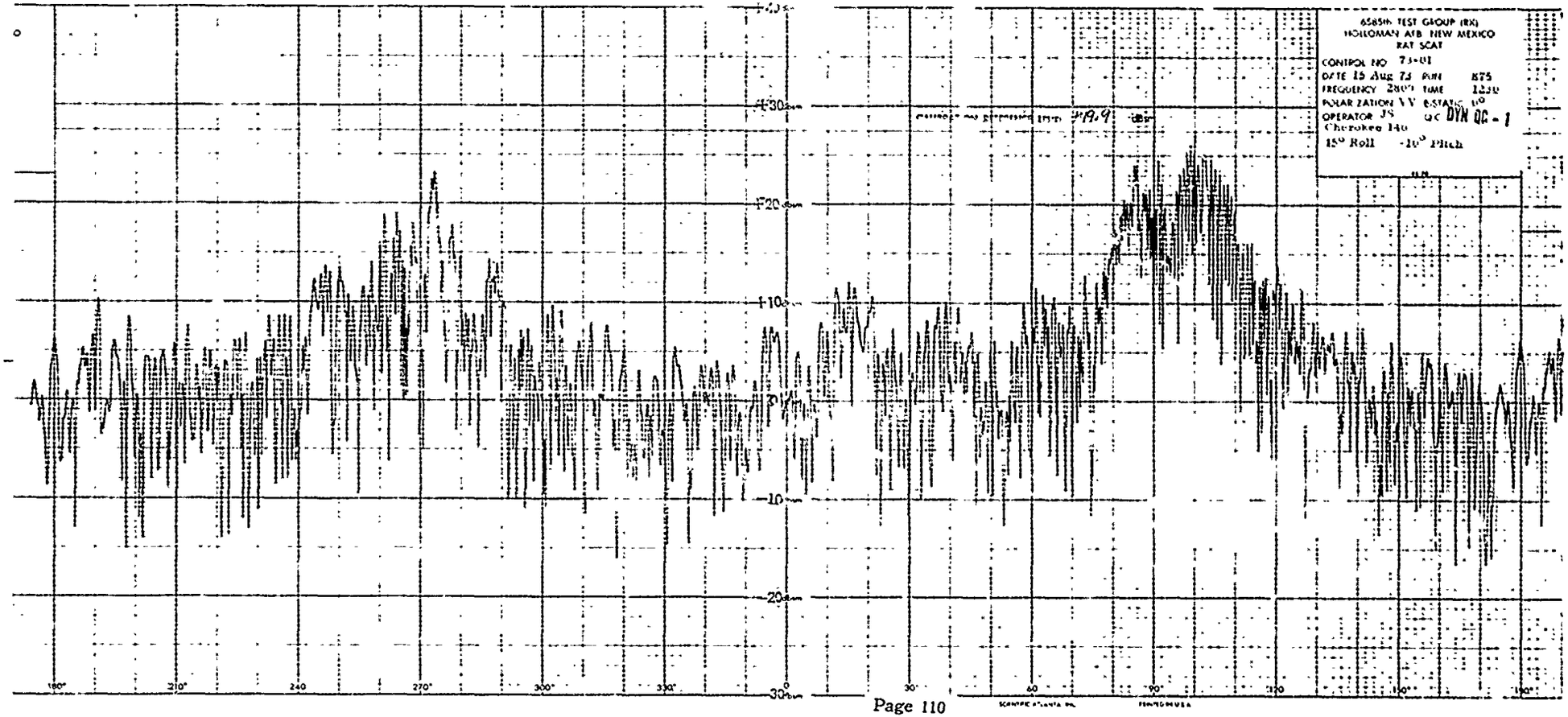

6585th TEST GROUP (RK)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 783
FREQUENCY 2800 TIME 1605
POLARIZATION VV BISTATIC 0°
OPERATOR MM
Cherokee 140
+30° Roll +10° Pitch
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

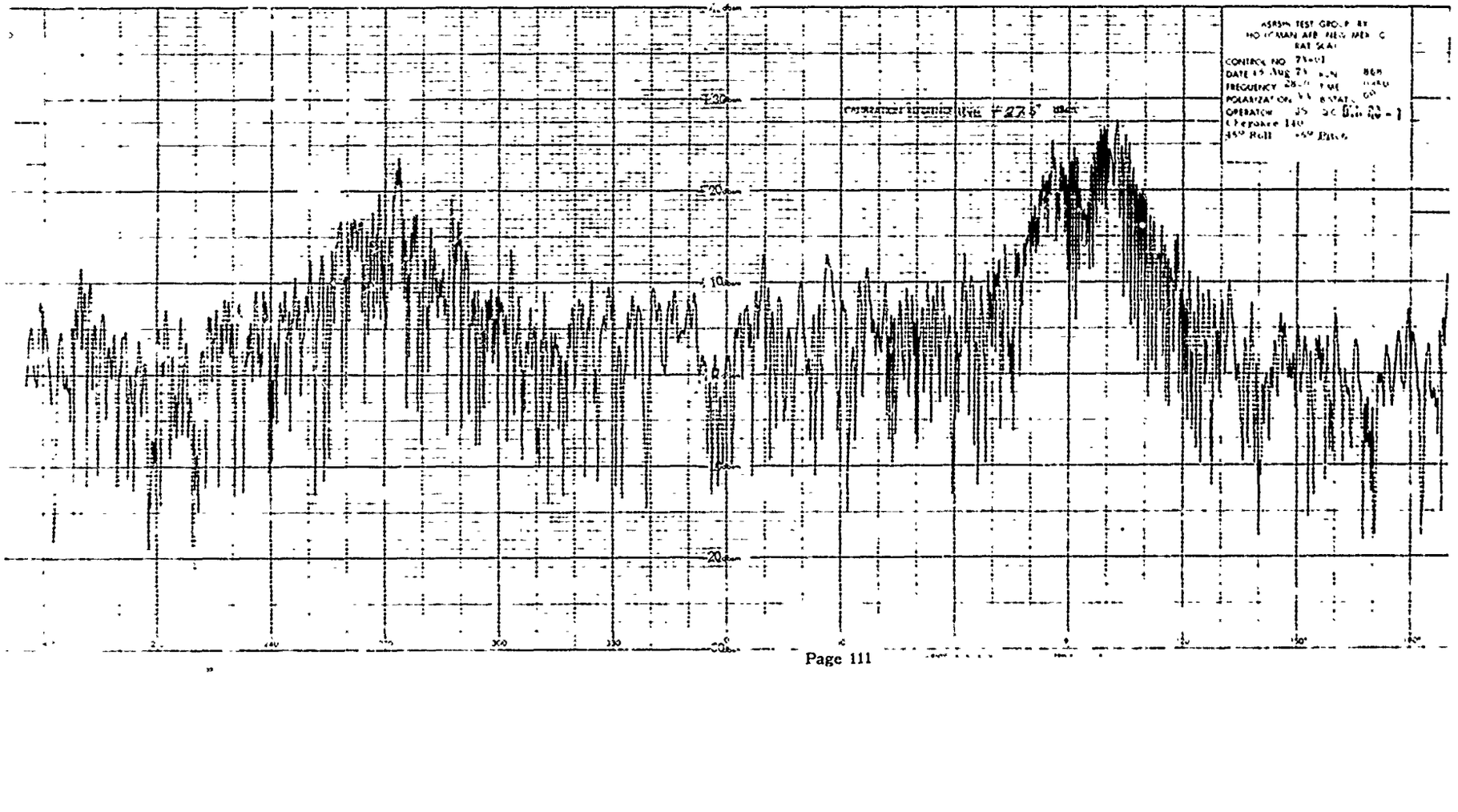

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 790
FREQUENCY 2800 TIME 1835
POLARIZATION VV BISTATIC 0°
OPERATOR MM QC
Cherokee 140
30° Roll -5° Pitch
CALIBRATION REFERENCE LEVEL = 2.7 dB
-30 dBsm
-20 dBsm
-10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
180°
210°
240°
270°
300°
330°
0°
30°
50°
90°


6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 811
FREQUENCY 2800 TIME 0720
POLARIZATION VV B-STATIC 0°
OPERATOR IS
Cherokee 140
10° Roll 0° Pitch
CALIBRATION REFERENCE LEVEL
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEX CO
Cherokee 140
30° Roll
45° Pitch
-30
-20
-10
0
10
20
30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 825
FREQUENCY 2800 TIME 1130
POLARIZATION VV BISTATIC 00
OPERATOR JS
Cherokee 110
30° Roll +10° Pitch
+30
+20
+10
0
-10
-20
180°
210°
240
270
300
330°
0
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 875
FREQUENCY 280° TIME 1230
POLARIZATION VV ESTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
15° Roll -10° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270°
300°
330°
0
30°
60
90°
120
150°
180°



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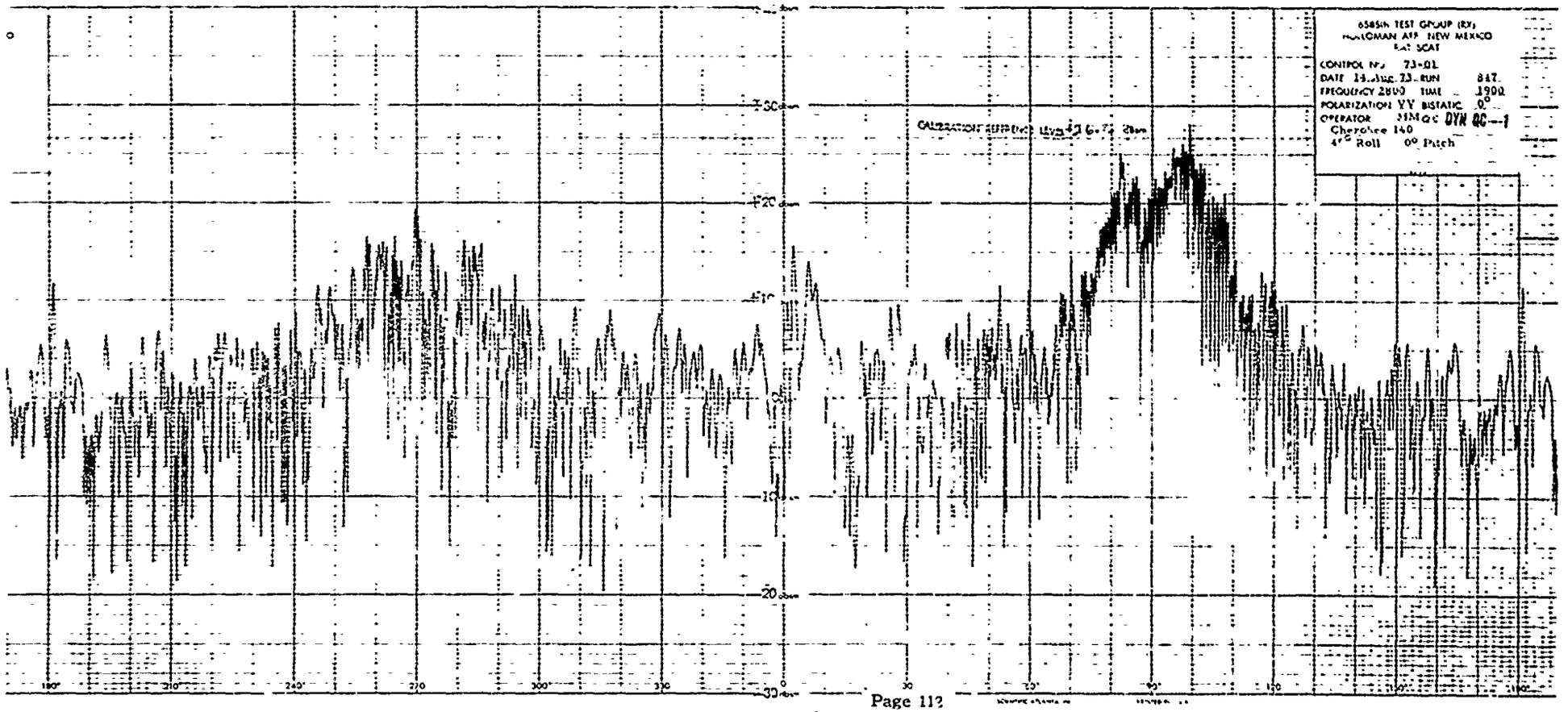
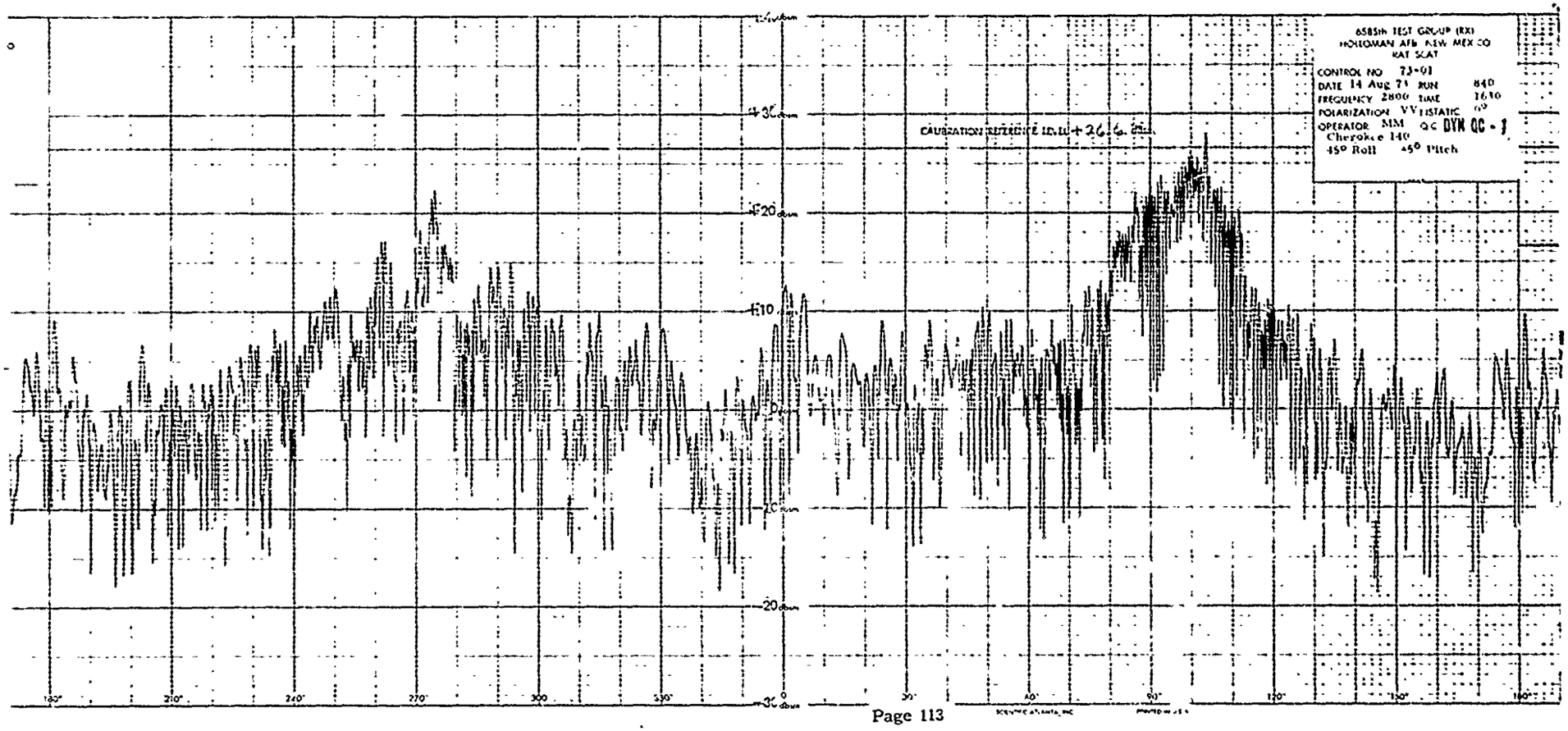
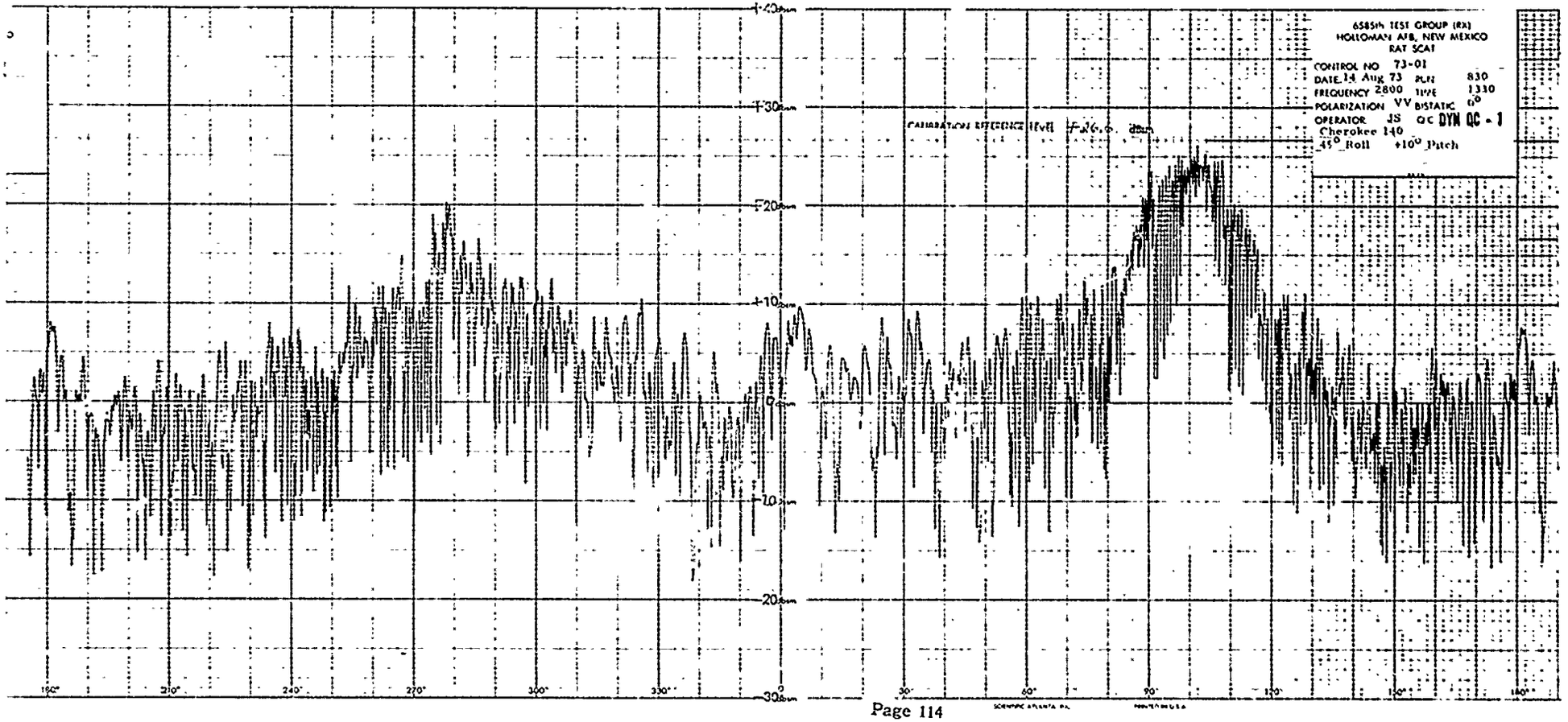
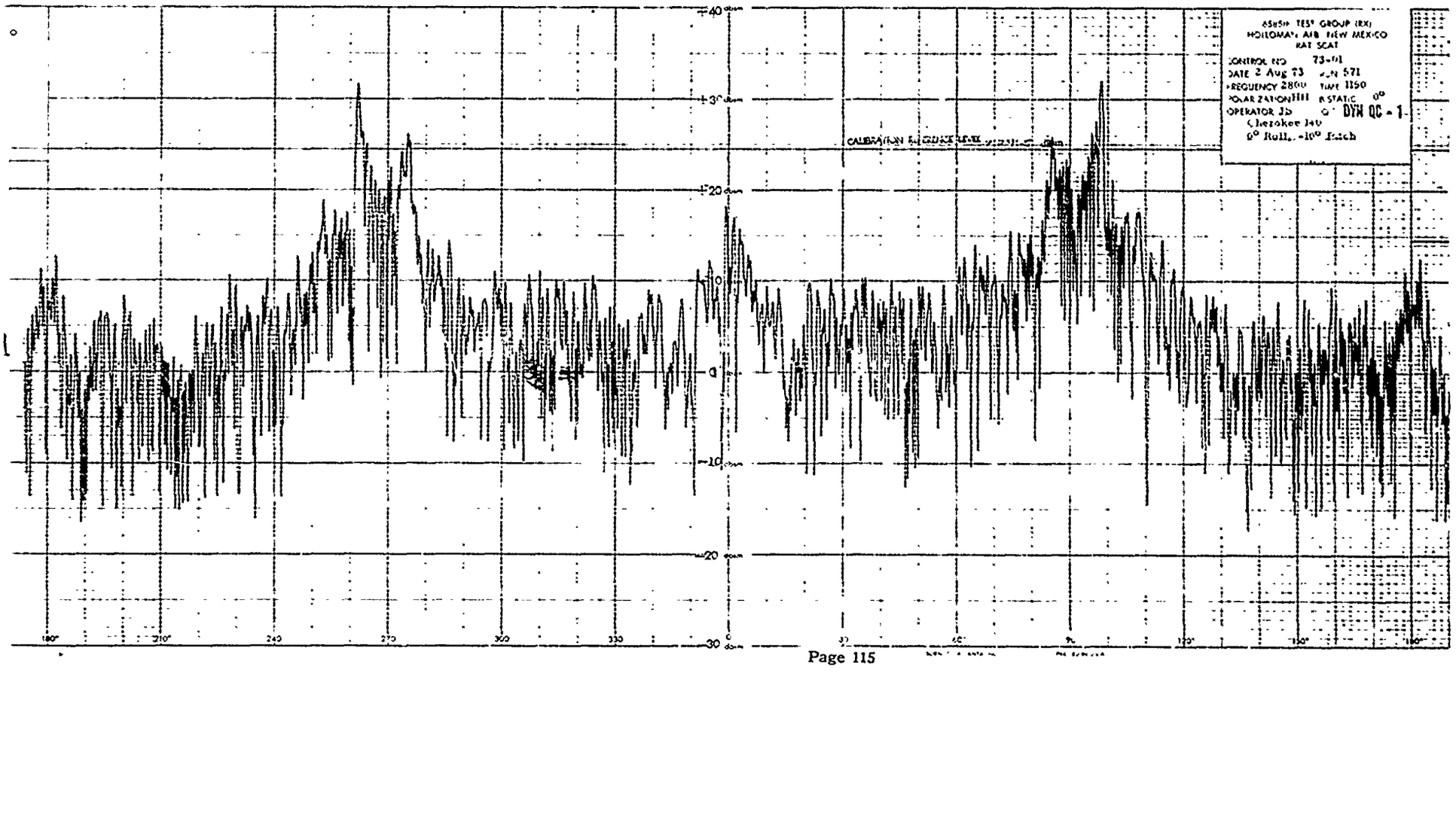
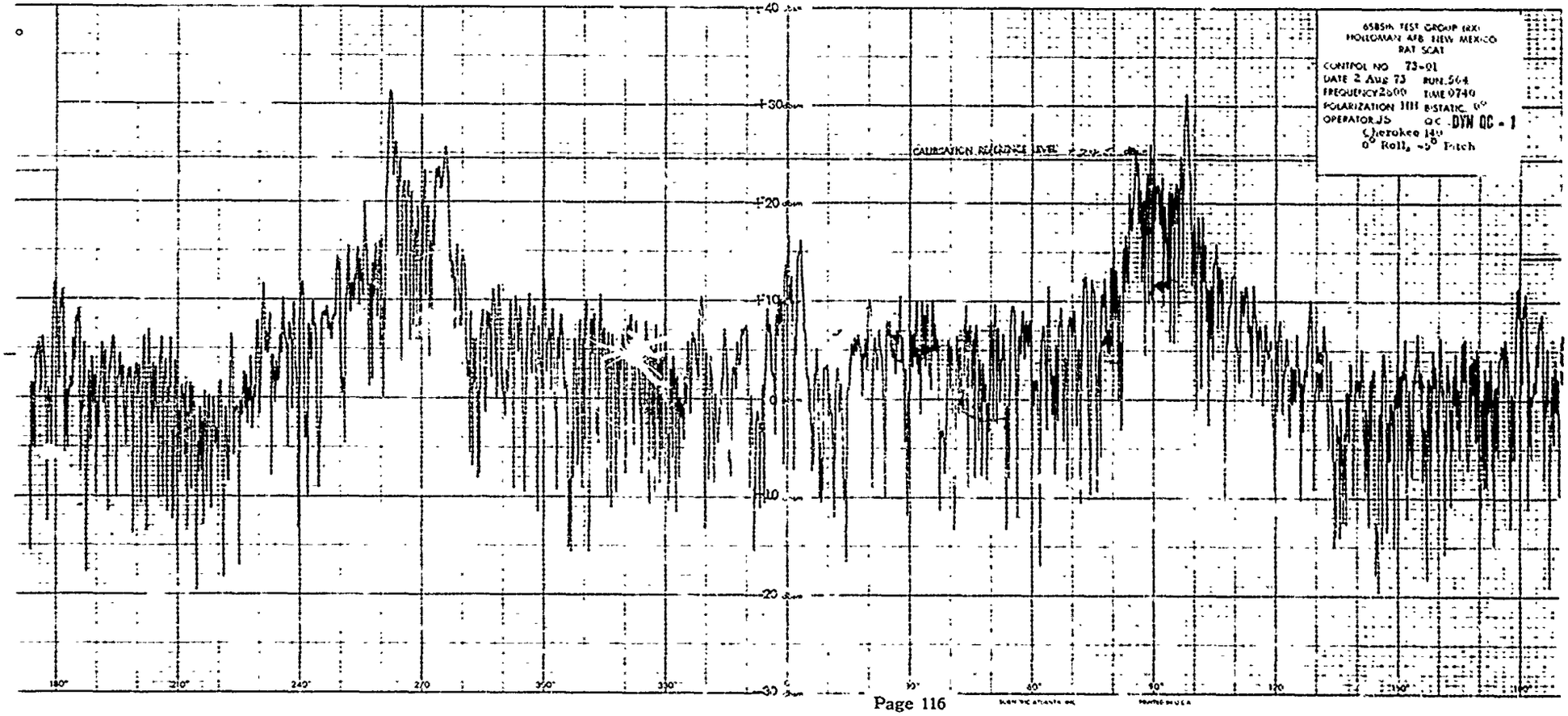
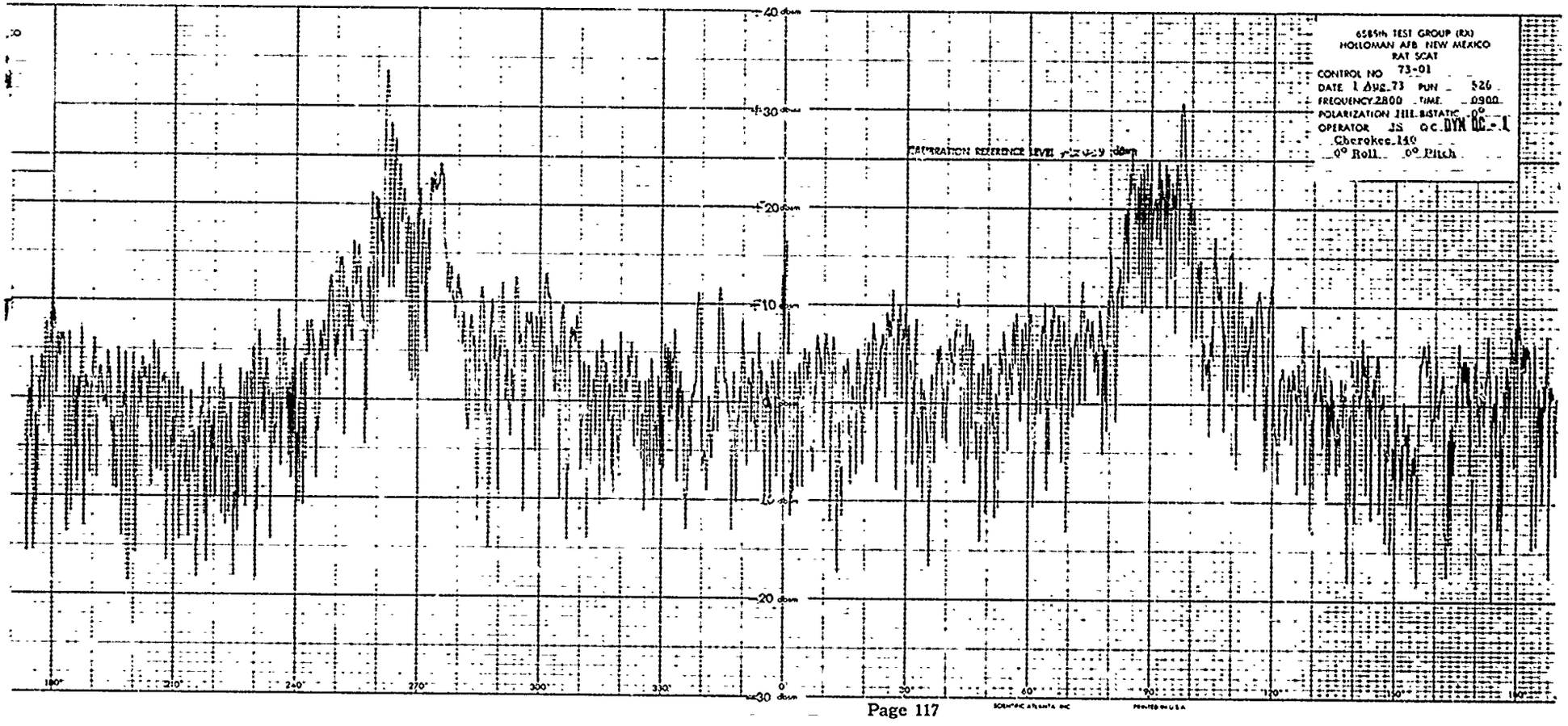

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
SAT SCAT
CONTROL No. 73-01
DATE 14 Aug 73 RUN 847
FREQUENCY 2800 TIME 1900
POLARIZATION VV BISTATIC 0°
OPERATOR SIMAC DYN QC-1
Cherokee 140
4° Roll 0° Pitch
-30
-20
-10
0
10
20
30
180°
210°
240°
270
300°
330
0
30
60°
90°
120
150
180°

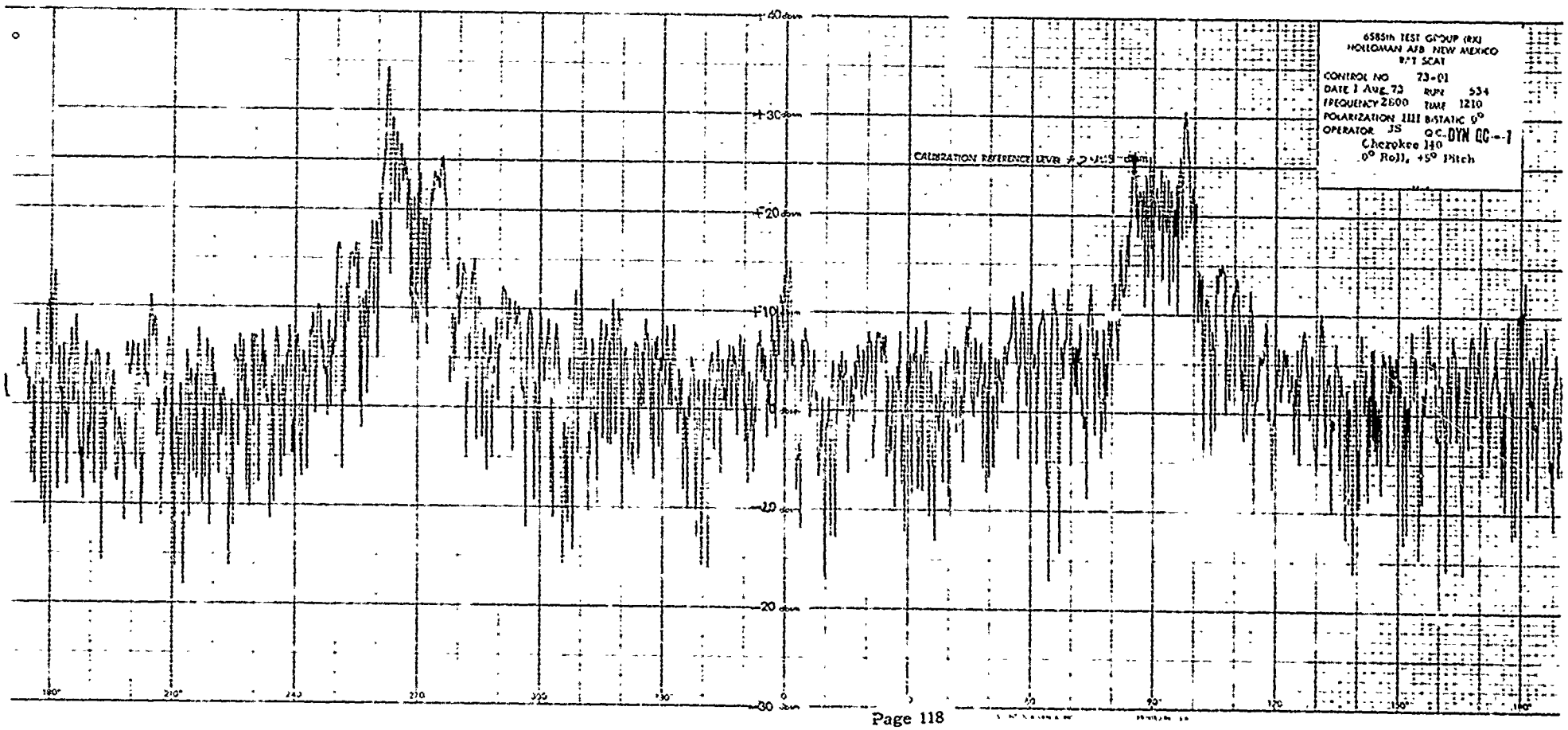

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-91
DATE 14 Aug 73 RUN 840
FREQUENCY 2800 TIME 1610
POLARIZATION VV ISTATIC 0°
OPERATOR MM QC DYN QC - 1
Cherokee 140
45° Roll 45° Pitch
CALIBRATION REFERENCE LEVEL +26.6 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

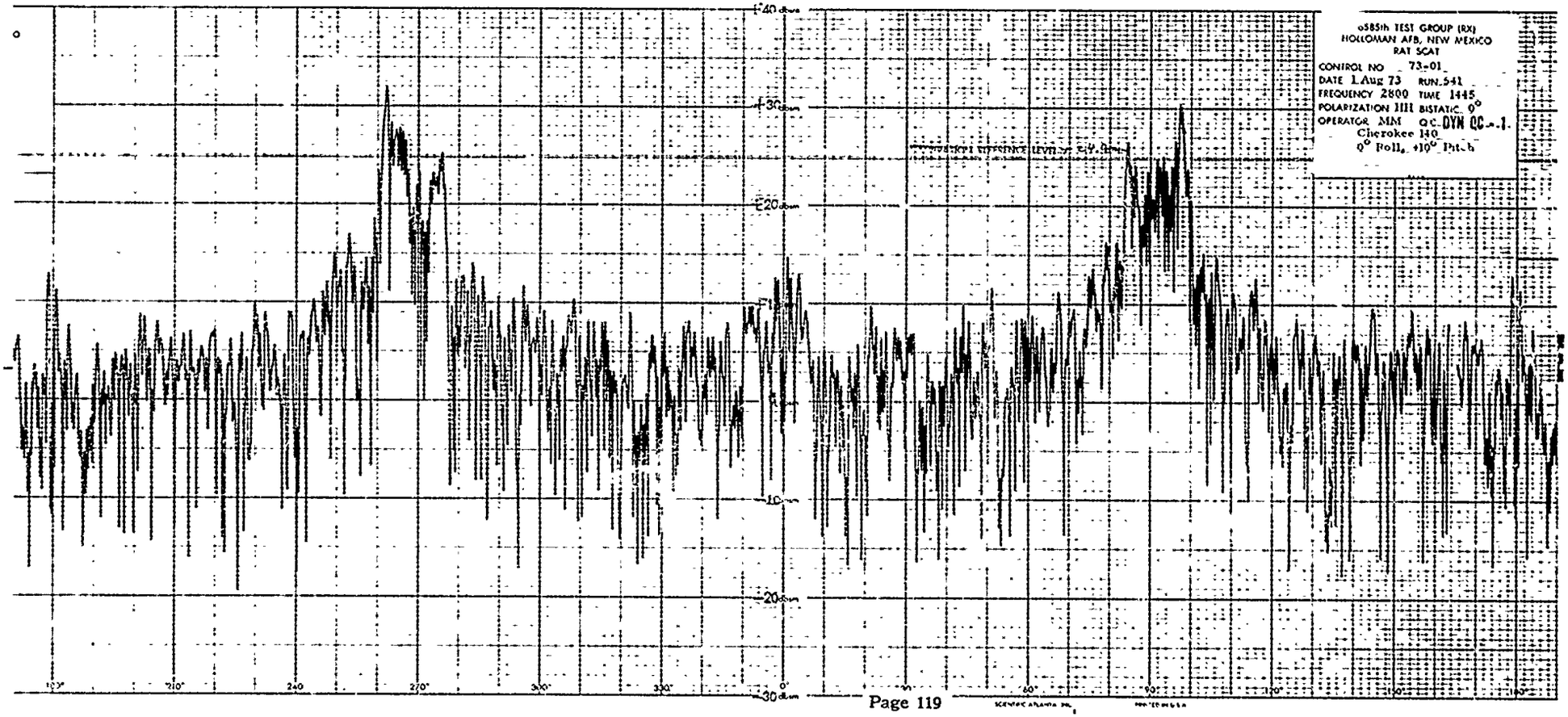

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 PLT 830
FREQUENCY 2800 TAPE 1330
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
45° Roll +10° Pitch
+30
+20
+10
0
-10
-20
-30
210°
240°
270°
300°
330°
30°
60°
90°
120°
150°
180°

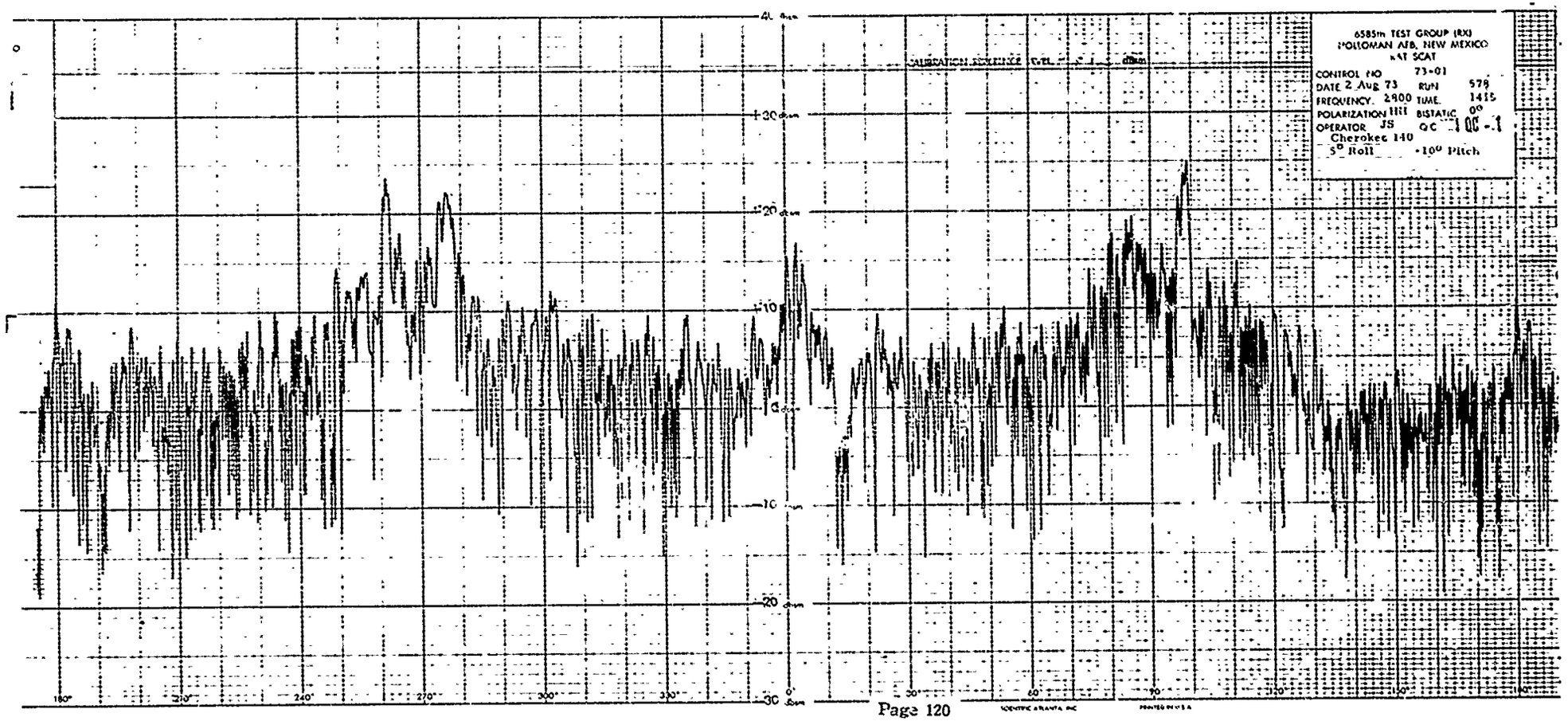

+40
+30
+20
+10
0
-10
-20
-30
CALIBRATION
65th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73
FREQUENCY 2800
POLARIZATION
OPERATOR JD
Cherokee 140
0° Roll, -10° Pitch
DYN QC - 1

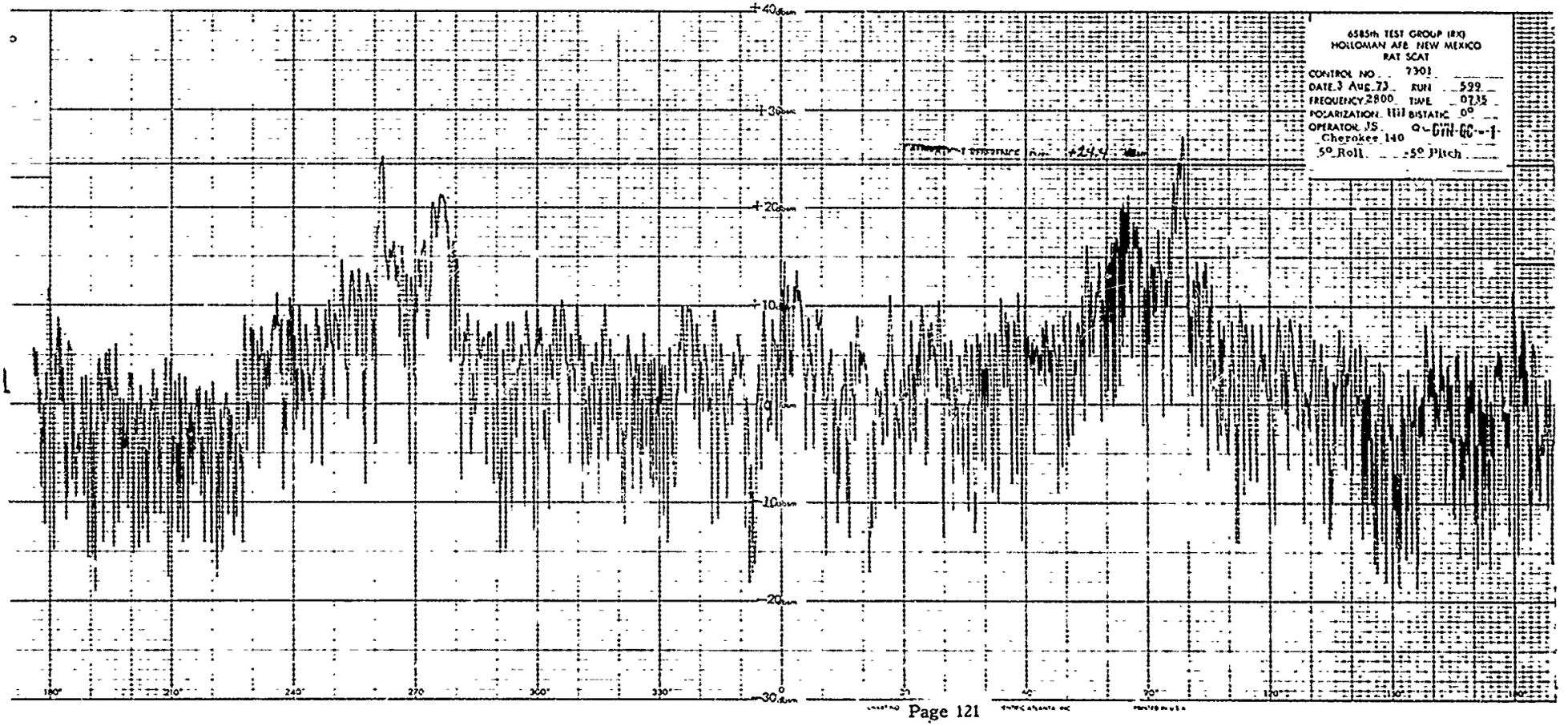

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 564
FREQUENCY 2600 TIME 0740
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
0° Roll, -5° Pitch
CALIBRATION REFERENCE LEVEL
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270
300°
330°
90°
60°
30°
120
150°

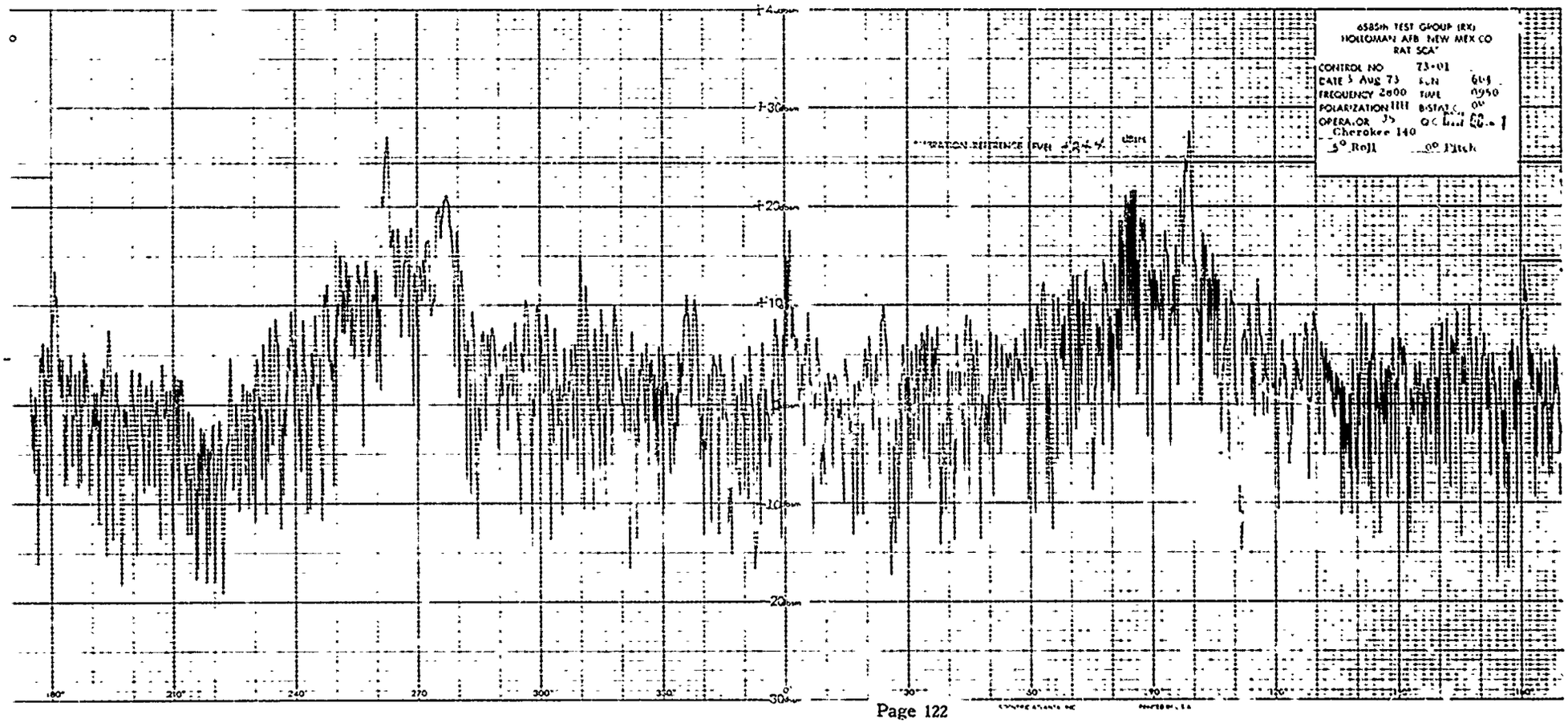

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 1 Aug 73 RUN 526
FREQUENCY 2800 TIME 0900
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
0° Roll 0° Pitch
CALIBRATION REFERENCE LEVEL
40 dbsm
30 dbsm
20 dbsm
10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°

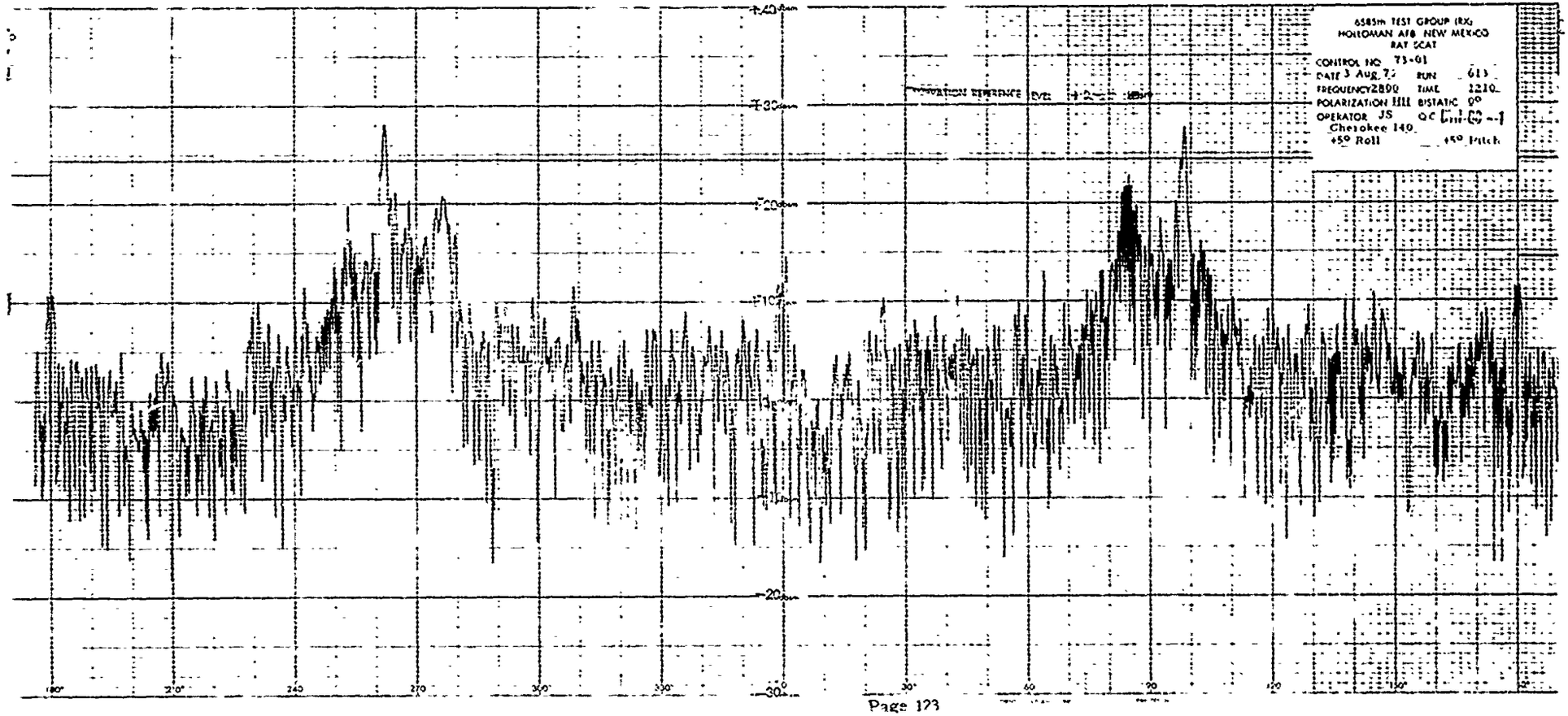

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
R/T SCAT
CONTROL NO 73-01
DATE 1 Aug. 73 RUN 534
FREQUENCY 2600 TIME 1210
POLARIZATION IIII BISTATIC 0°
OPERATOR JS QC-DYN QC--1
Cherokee 140
0° Roll, +5° Pitch
CALIBRATION REFERENCE LEVEL
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240
270
300
330°
0
30
60
90°
120
150°
180°

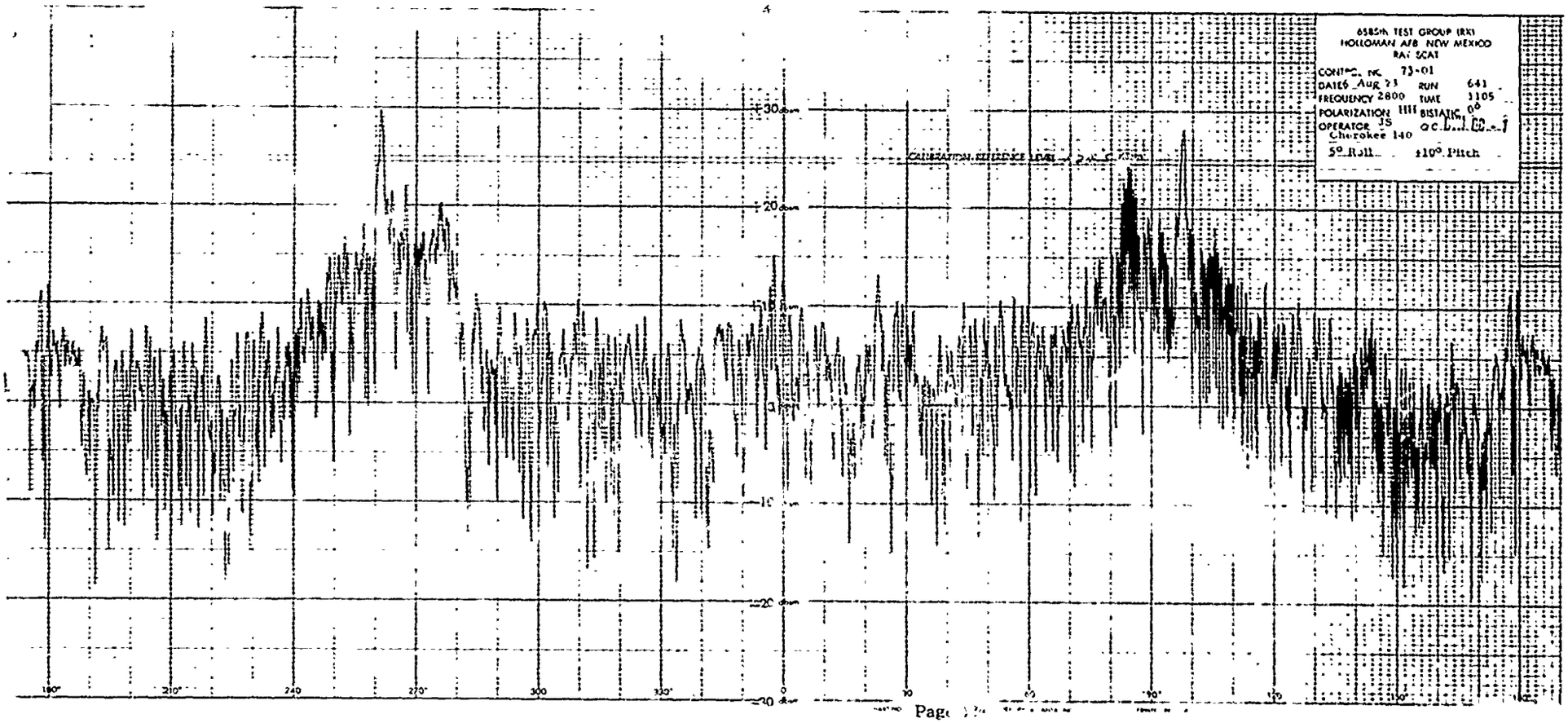

o585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 1 Aug 73 RUN 541
FREQUENCY 2800 TIME 1445
POLARIZATION HH BISTATIC 0°
OPERATOR MM QC DYN QC-1
Cherokee 140
0° Roll, +10° Pitch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
210°
240
270°
300°
330°
0°
30
60°
90°
120°

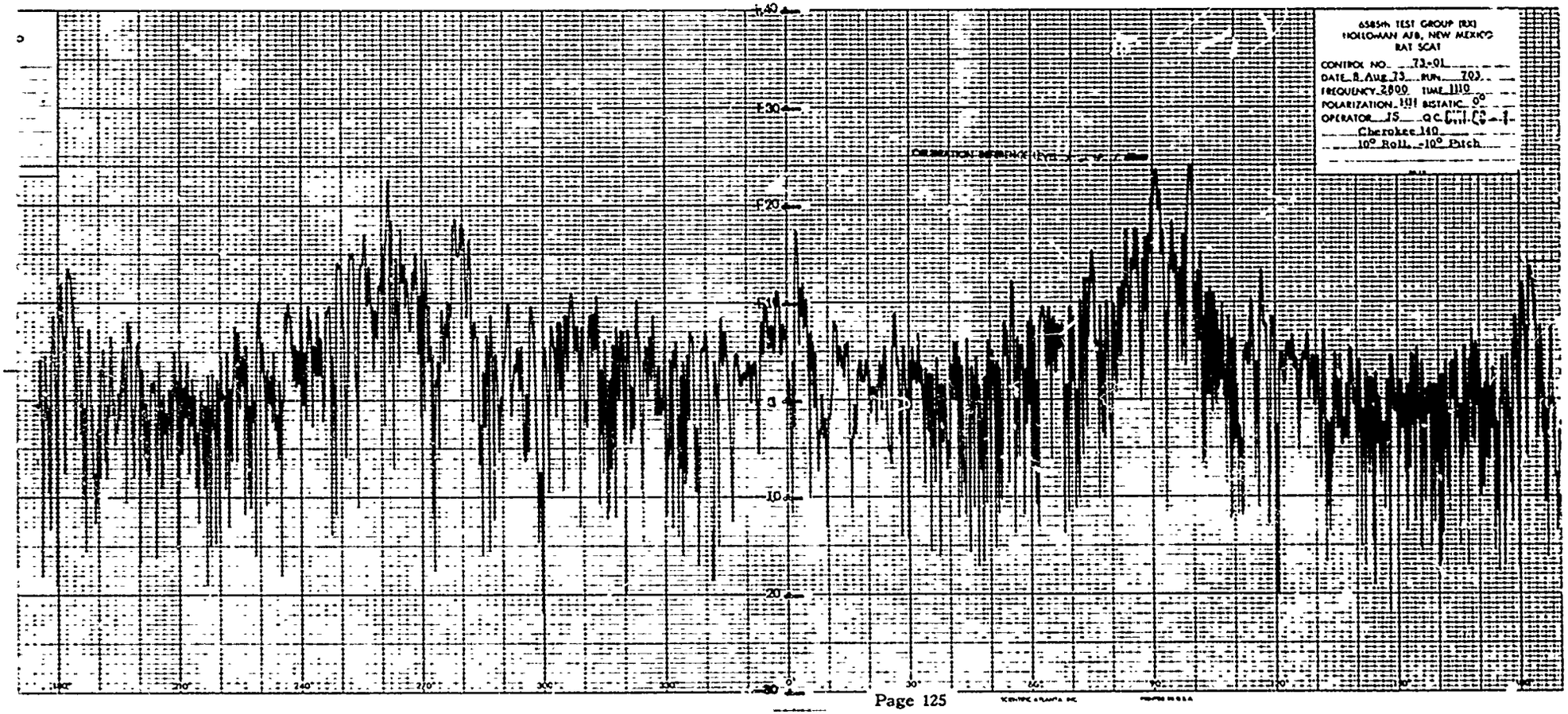

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
AAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 579
FREQUENCY 2900 TIME 1415
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC 1 OC -1
Cherokee 140
5° Roll +10° Pitch
+30 dbsm
+20 dbsm
+10
0 dbsm
-10
-20 dbsm
-30
180°
210°
240°
270°
300°
330°
30°
60°
90°

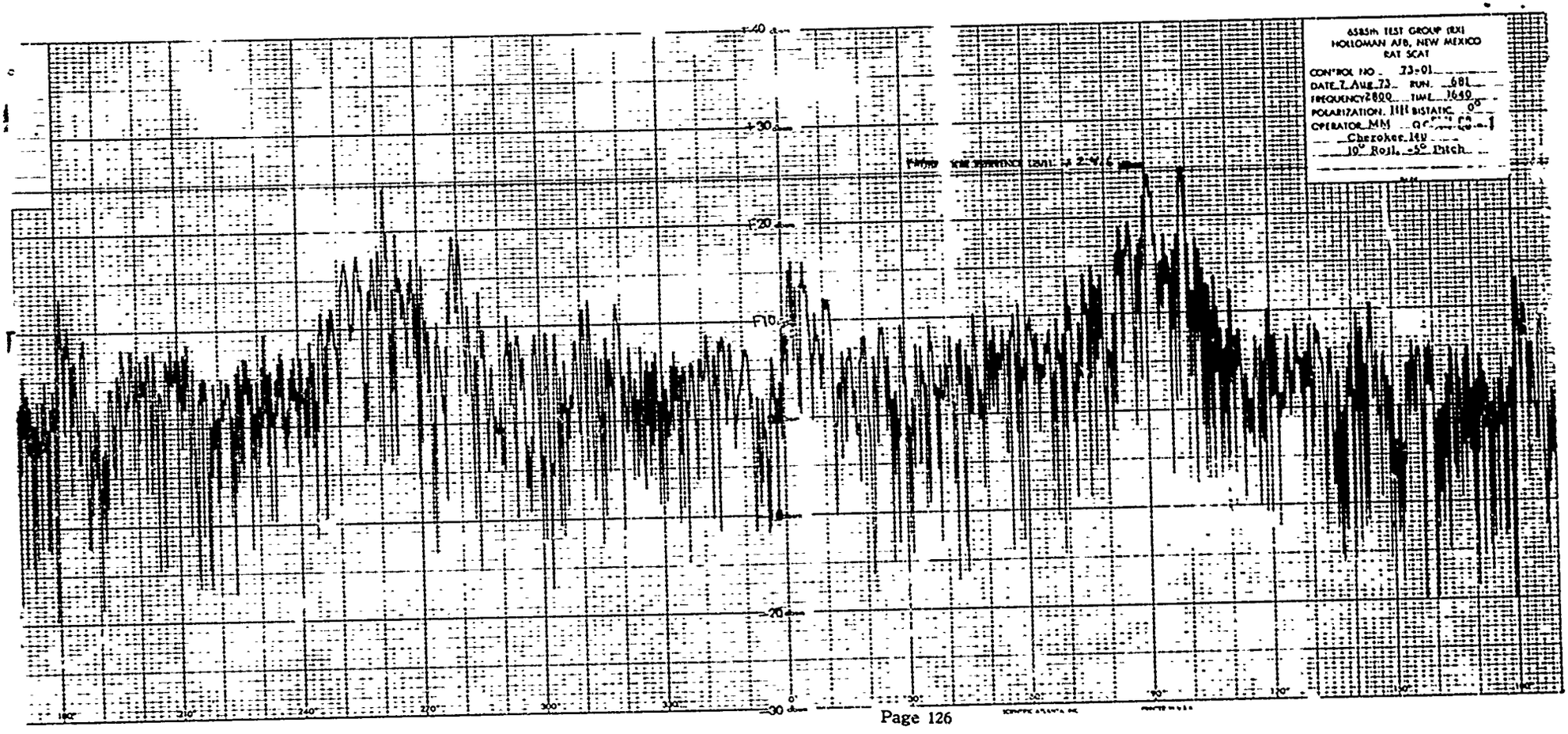

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO. 7301
DATE 3 Aug 73 RUN 599
FREQUENCY 2800 TIME 0735
POLARIZATION HH BISTATIC 0°
OPERATOR JS Q-GTN-GC--1
Cherokee 140
5° Roll 5° Pitch
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270
300°
330°
30
40
70°
170°
150°
130°

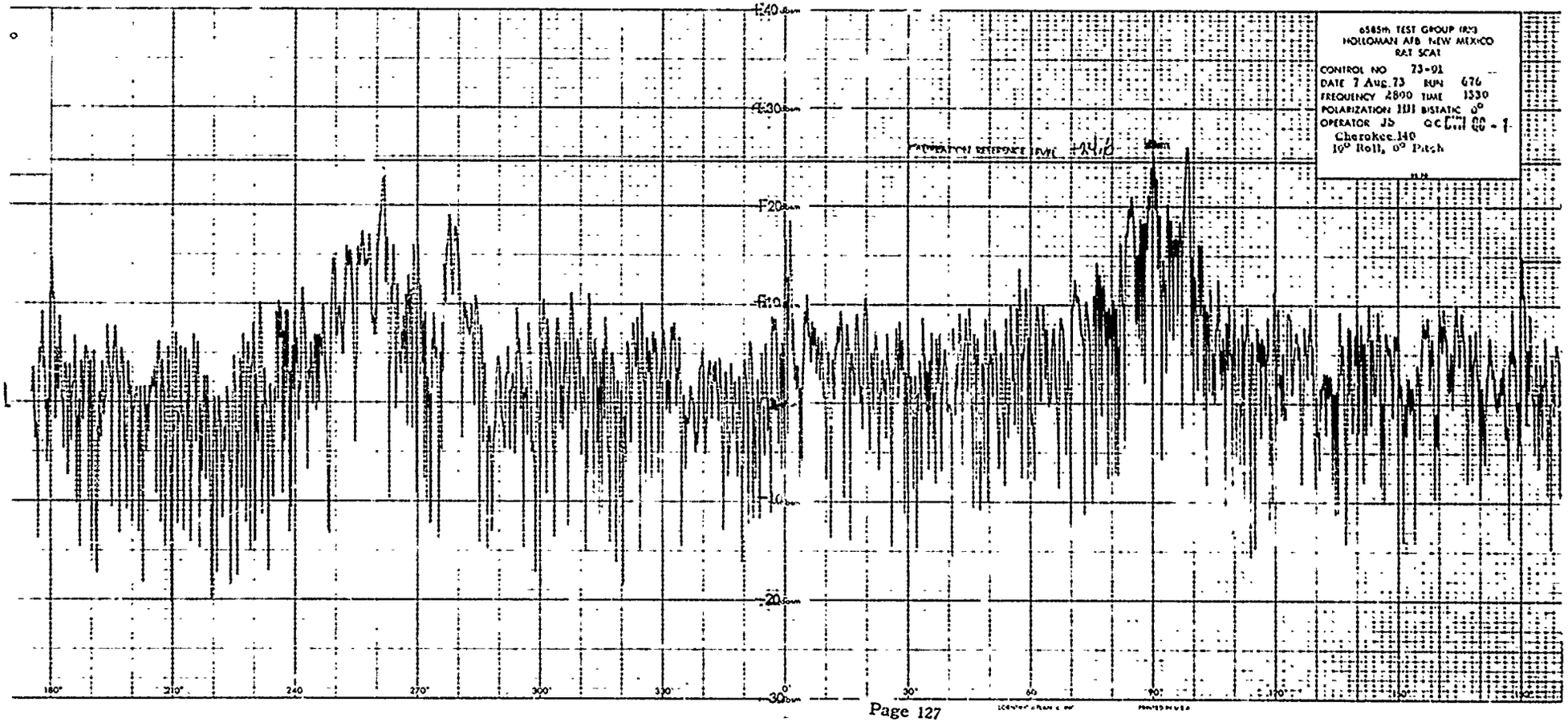

6585th TEST GROUP (RK)
HOLLOMAN AFB NEW MEX CO
RAT SCAT
CONTROL NO 73-01
DATE 5 Aug 73
FREQUENCY 2600
POLARIZATION
OPERATOR
Cherokee 140
5° Roll
0° Pitch
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270
300°
330°
0°
30°
60°
90°
120°
150°
180°

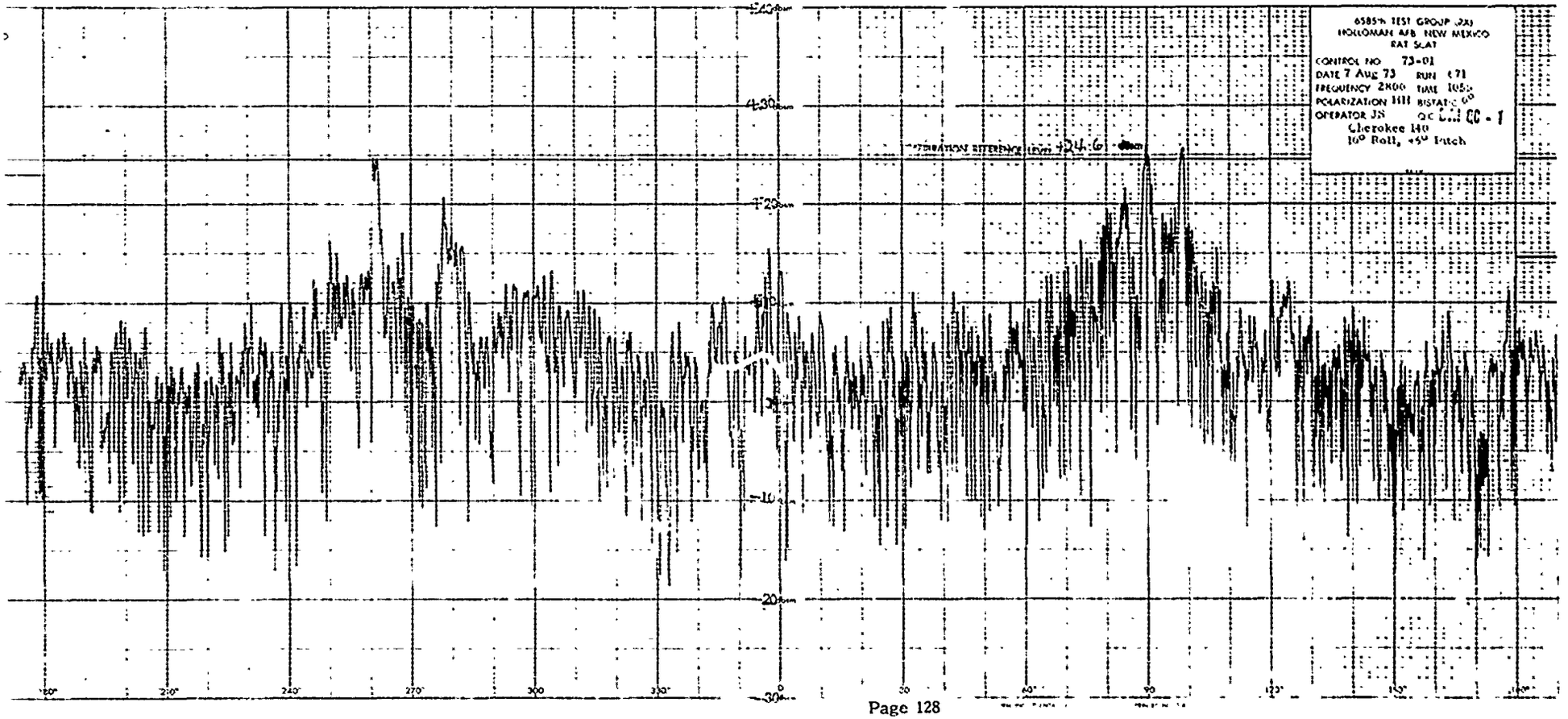

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73 RUN 613
FREQUENCY2800 TIME 1210
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC
Cherokee 140
+5° Roll +5° Pitch
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270
300°
330°
30°
60
90
120
150°

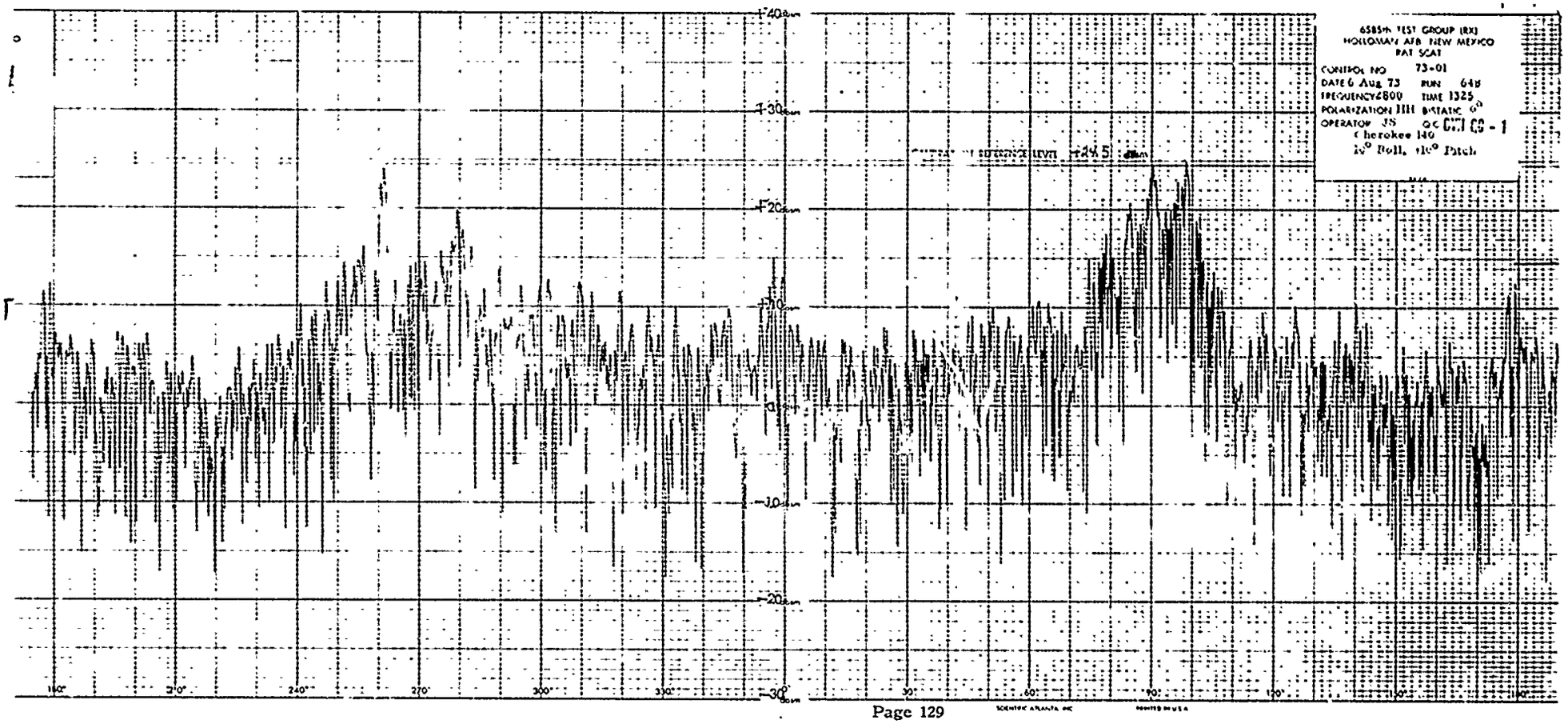

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAI SCAT
CONTROL NO. 73-01
DATE 6 Aug 73
RUN 641
FREQUENCY 2800
TIME 1105
POLARIZATION ||||
BISTATIC 0°
OPERATOR JS
QC
Cherokee 140
5° Roll
±10° Pitch
CALIBRATION REFERENCE LEVEL
-30 dBsm
-20 dBsm
-10 dBsm
0 dBsm
10 dBsm
180°
210°
240
270°
300
330°
0
30
60
90°
120
150°
180°

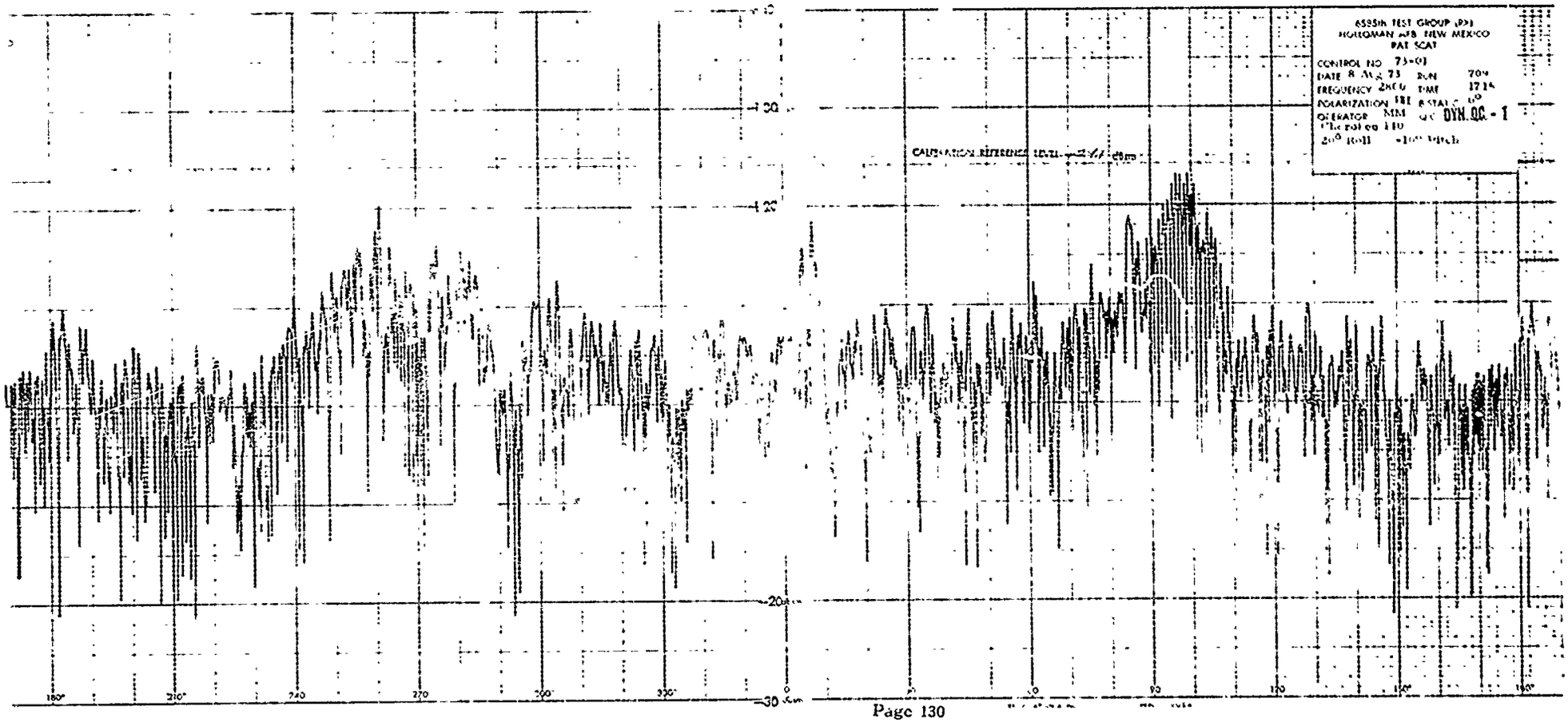

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 8 Aug 73 RUN 703
FREQUENCY 2800 TIME 1110
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC
Cherokee 140
10° Roll, -10° Pitch
+40
+30
+20
+10
3
10
20
0°
30°

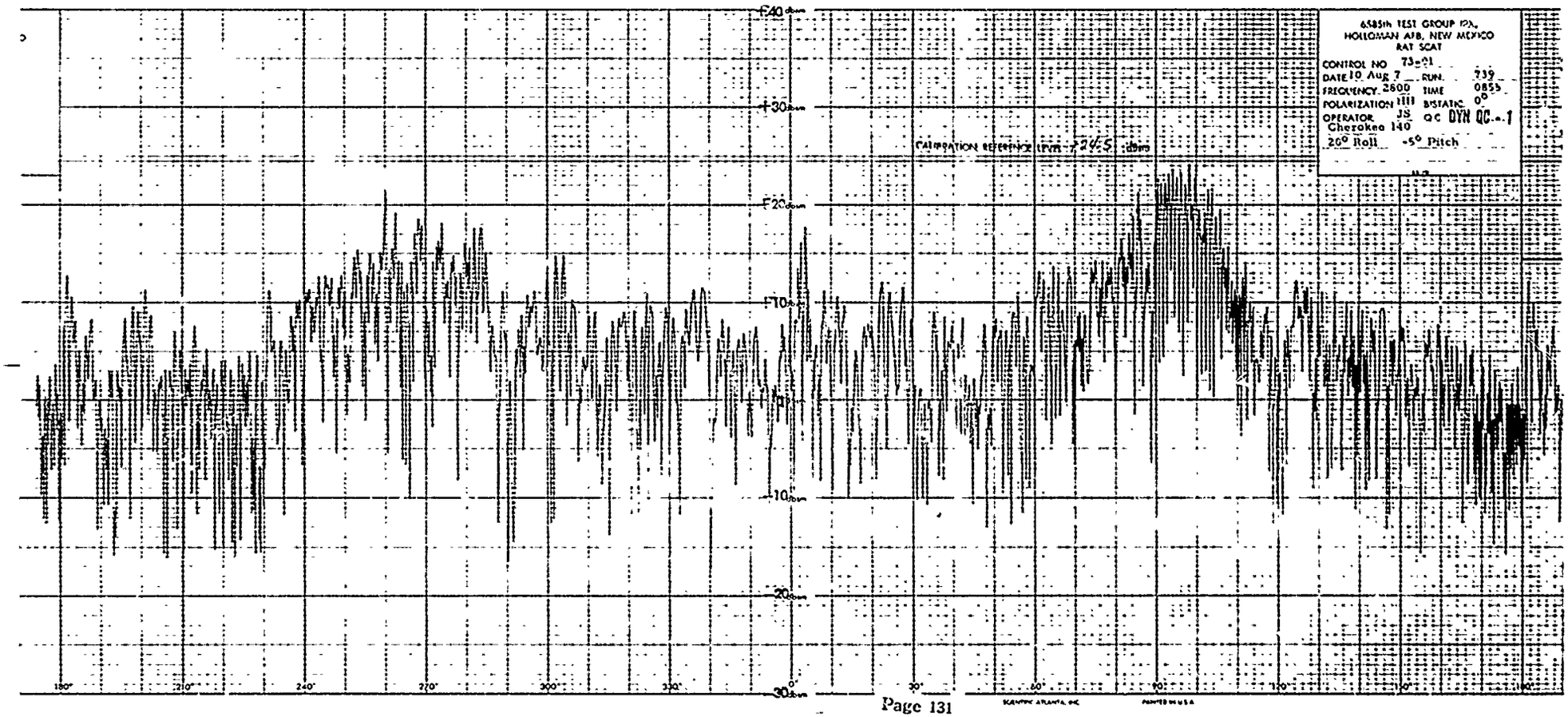

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 7 Aug 73 RUN 681
FREQUENCY 2800 TIME 1649
POLARIZATION HH BISTATIC 0°
OPERATOR MM
Cherokee 140
10° Roll, +5° Pitch
+40 dBsm
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
50°
90°
170°

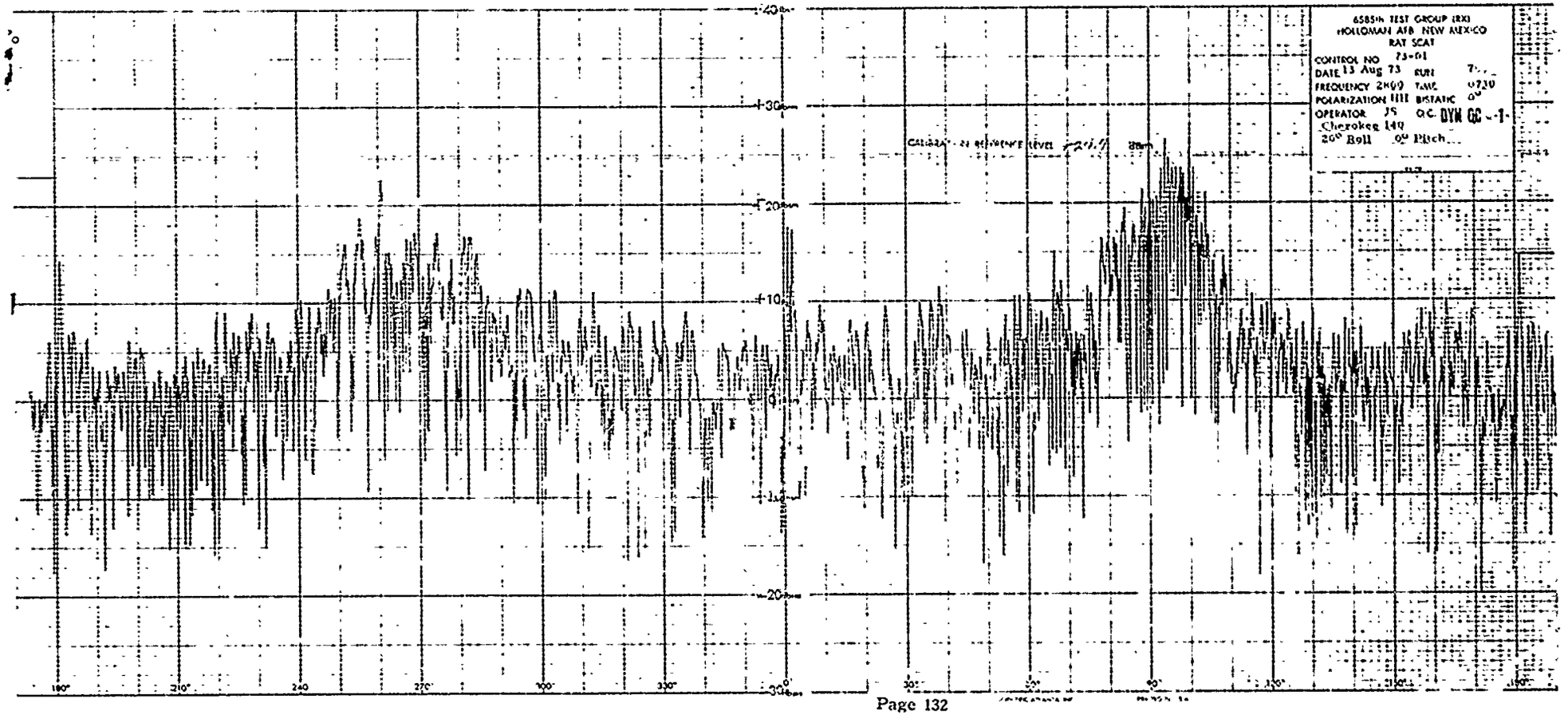

6585th TEST GROUP (RR)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-91
DATE 7 Aug 73 RUN 676
FREQUENCY 2800 TIME 1530
POLARIZATION HH BISTATIC 0°
OPERATOR JD QC Ctrl 00 - 1
Cherokee 140
10° Roll, 0° Pitch
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270°
300°
330
0°
30°
60
90°
120°
150°

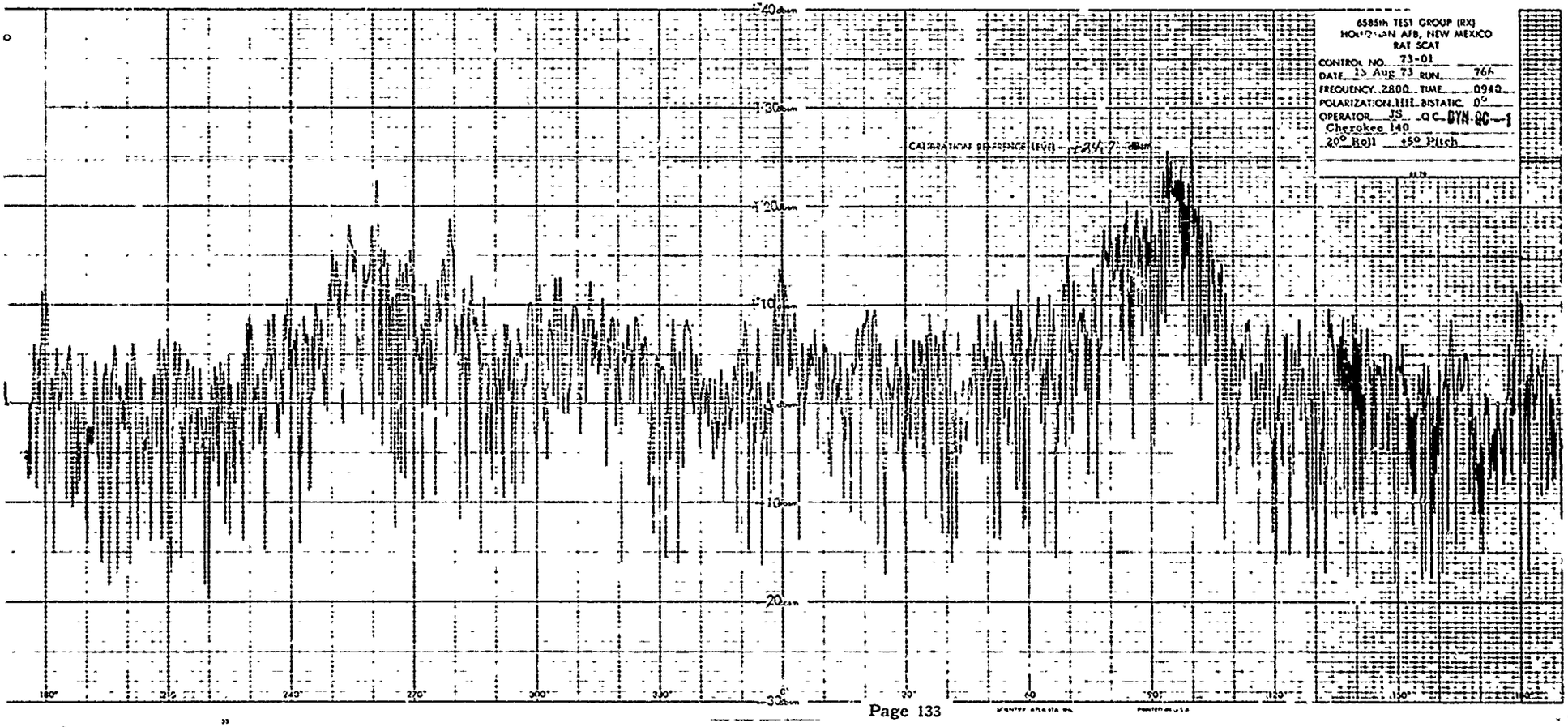

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73
FREQUENCY 2800
POLARIZATION HH
OPERATOR JS
Cherokee 140
16° Roll, +5° Pitch
+30
+20
+10
0
-10
-20
-30
210°
240°
270°
300
330°
30
60°
90
120°
150°
180°

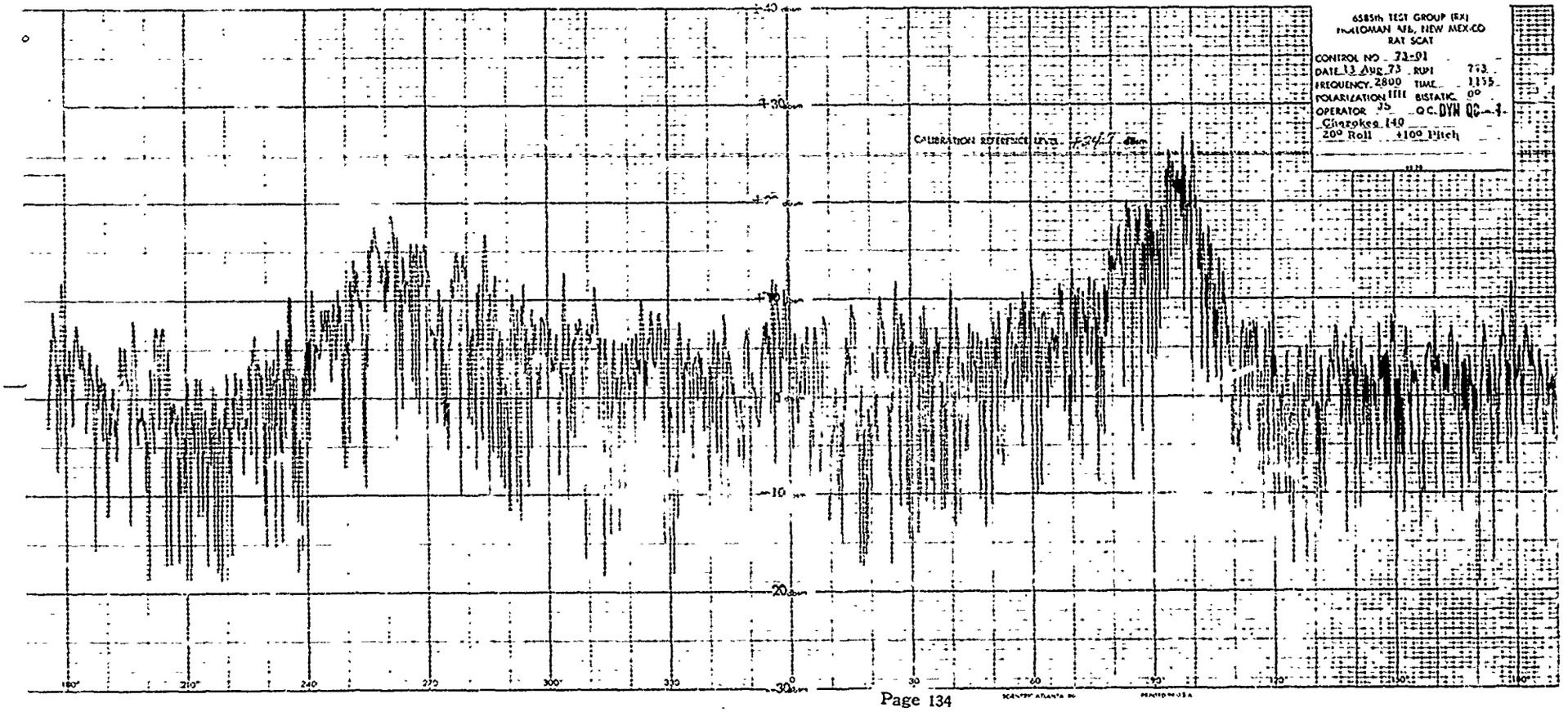

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 6 Aug 73 RUN 648
FREQUENCY 6800 TIME 1325
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC
Cherokee 140
10° Roll, +10° Pitch
+40
+30
+20
+10
0
-10
-20
-30
120°
210°
240°
270°
300°
330°
30°
60°
90°
120°

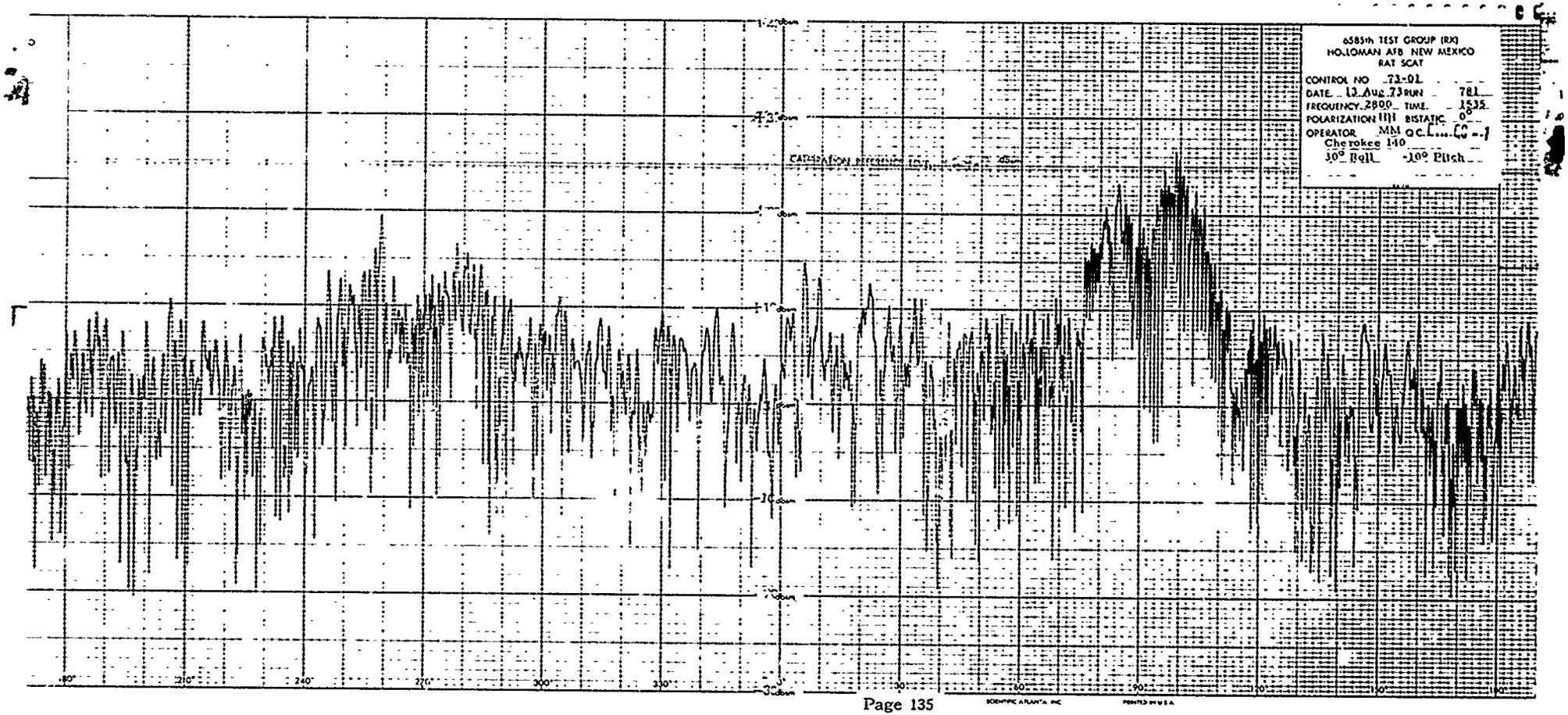

6585th TEST GROUP (PP)
HOLLOMAN AFB NEW MEXICO
PAT SCAT
CONTROL NO 73-01
DATE 8 AUG 73 RUN 709
FREQUENCY 2800 TIME 1715
POLARIZATION RHC STALO 60
OPERATOR MIKE QC DYN QC - 1
-10
-20
-30
180°
210°
240
270
300°
330°
0
30
60
90
120
150°
180°

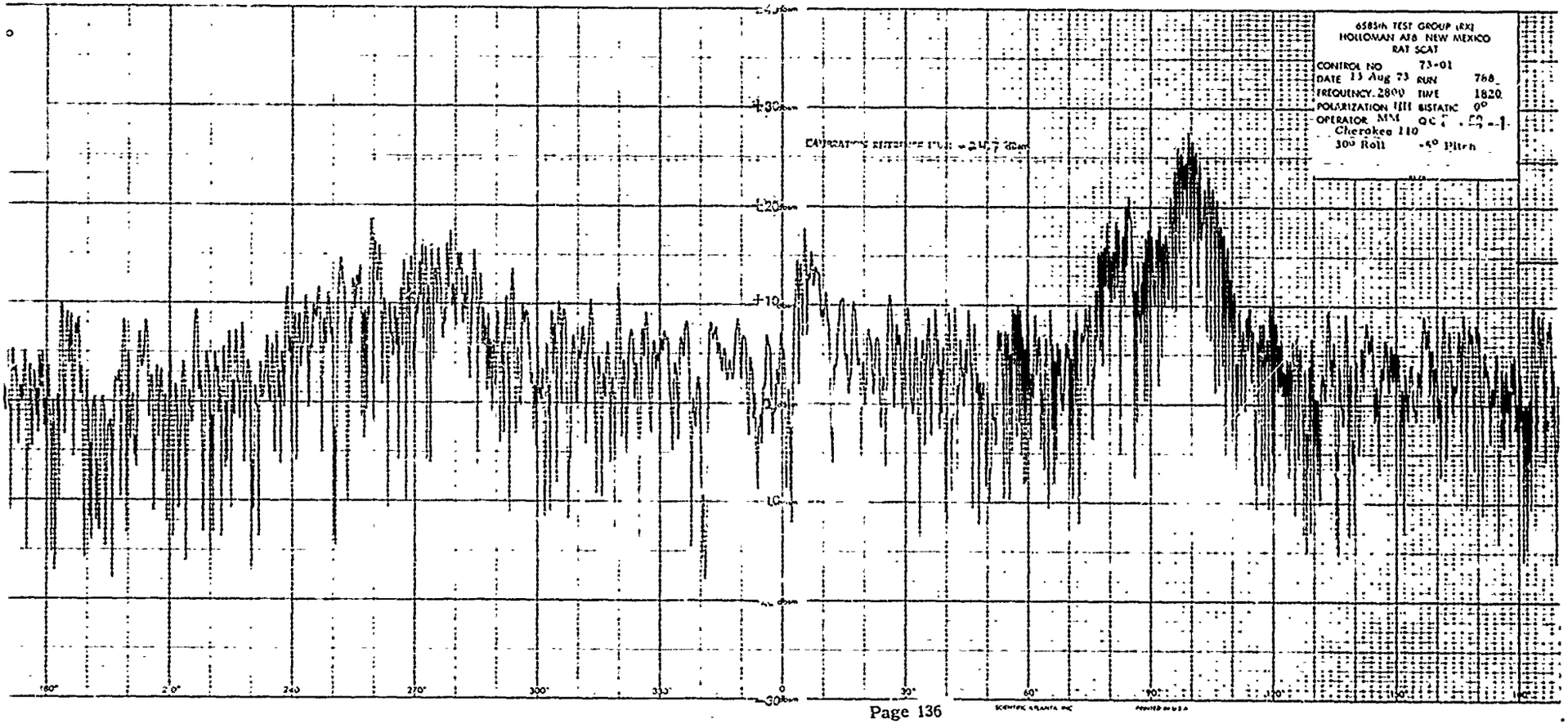

6585th TEST GROUP (PA)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 10 Aug 7 RUN 739
FREQUENCY 2800 TIME 0855
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
20° Roll -5° Pitch
CALIBRATION REFERENCE LEVEL -24.5 dbsm
+40dbsm
+30dbsm
+20dbsm
+10dbsm
0dbsm
-10dbsm
-20dbsm
-30dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

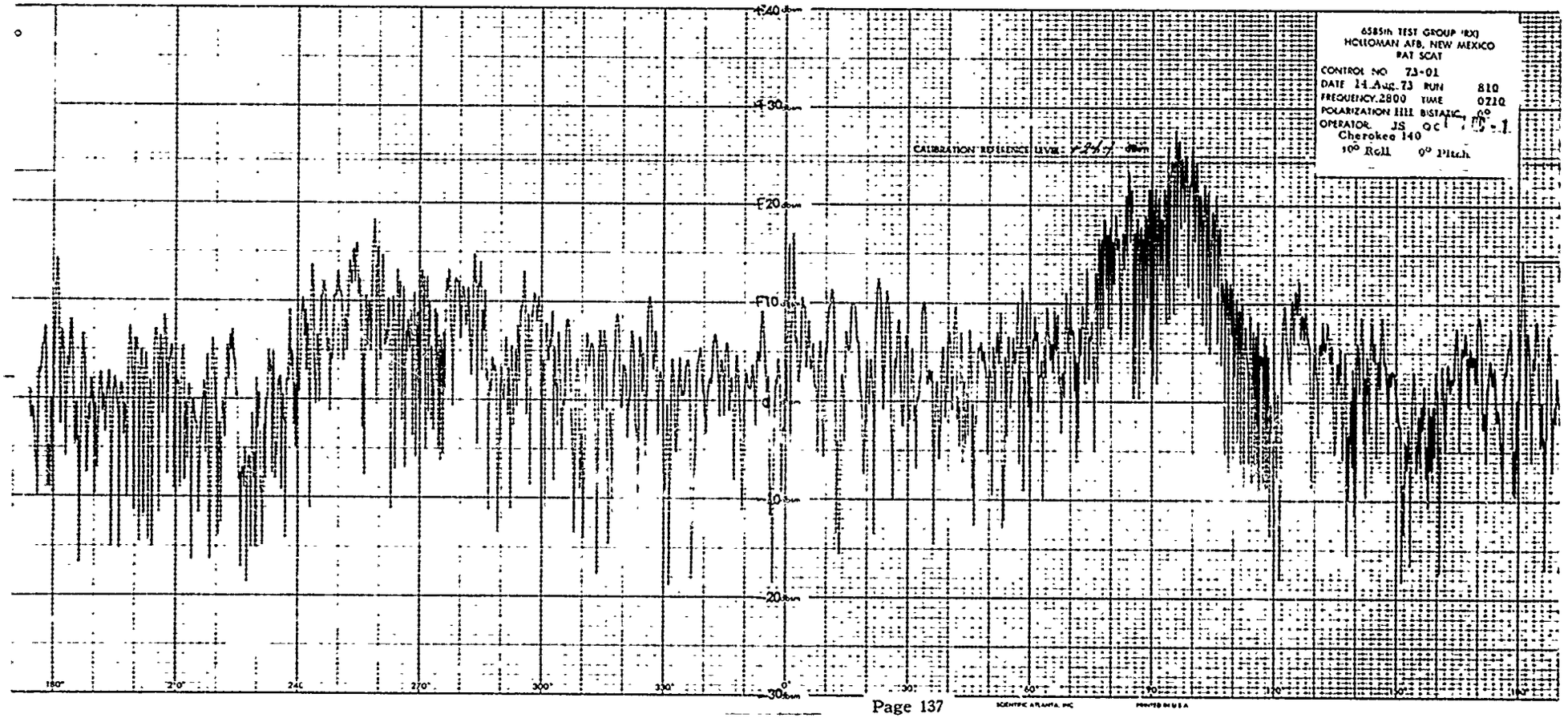

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 7
FREQUENCY 2400 TIME 0730
POLARIZATION HH BISTATIC 0°
OPERATOR JS O.C. DYN GC -1-
Cherokee 140
20° Roll 0° Pitch
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

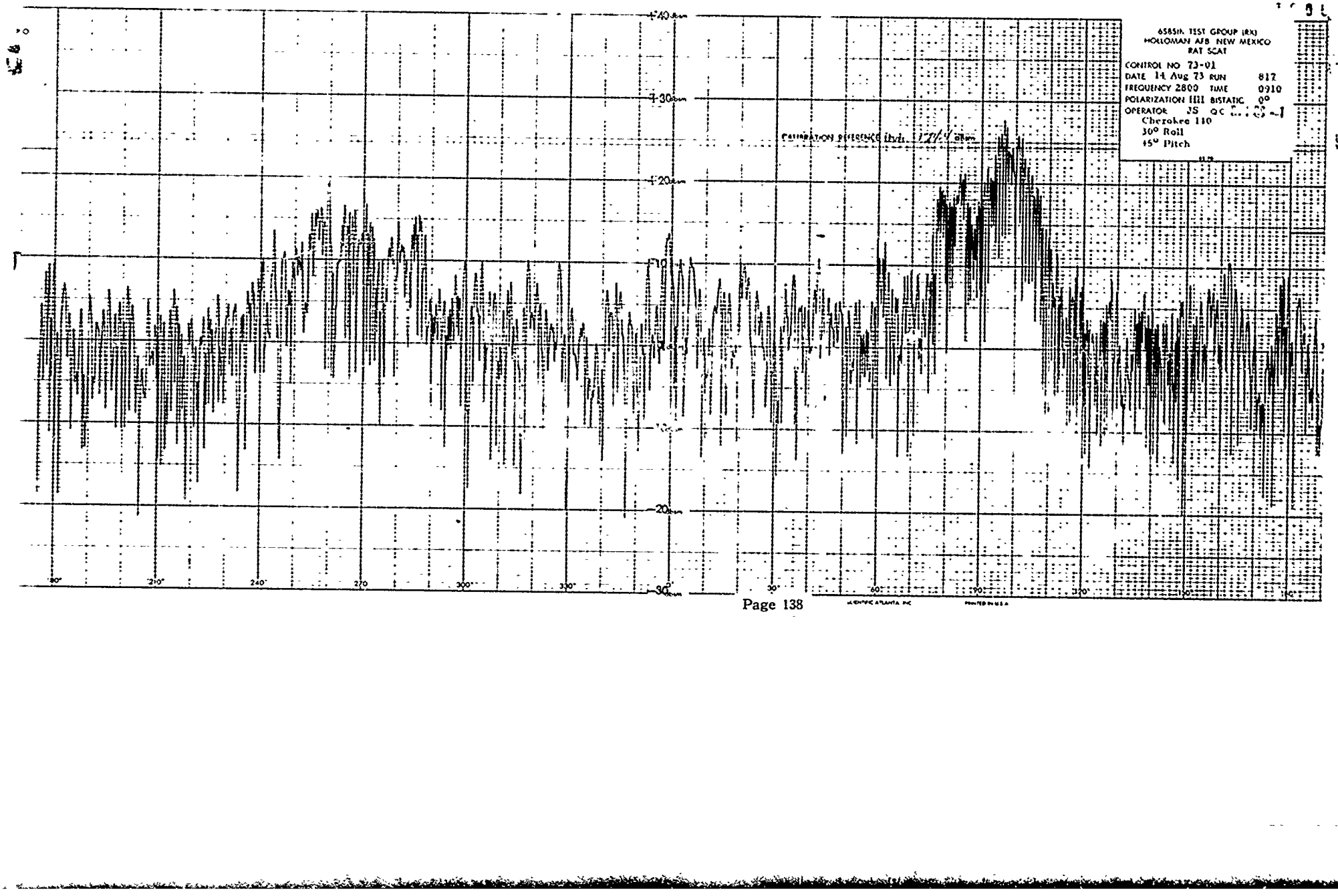

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 15 Aug 73 RUN 76A
FREQUENCY 2800 TIME 0949
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC DYN-QC-1
Cherokee 140
20° Roll ±5° Pitch
CALIBRATION REFERENCE LEVEL -29.7 dBsm
-40dBsm
-30dBsm
-20dBsm
-10dBsm
0dBsm
10dBsm
20dBsm
30dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

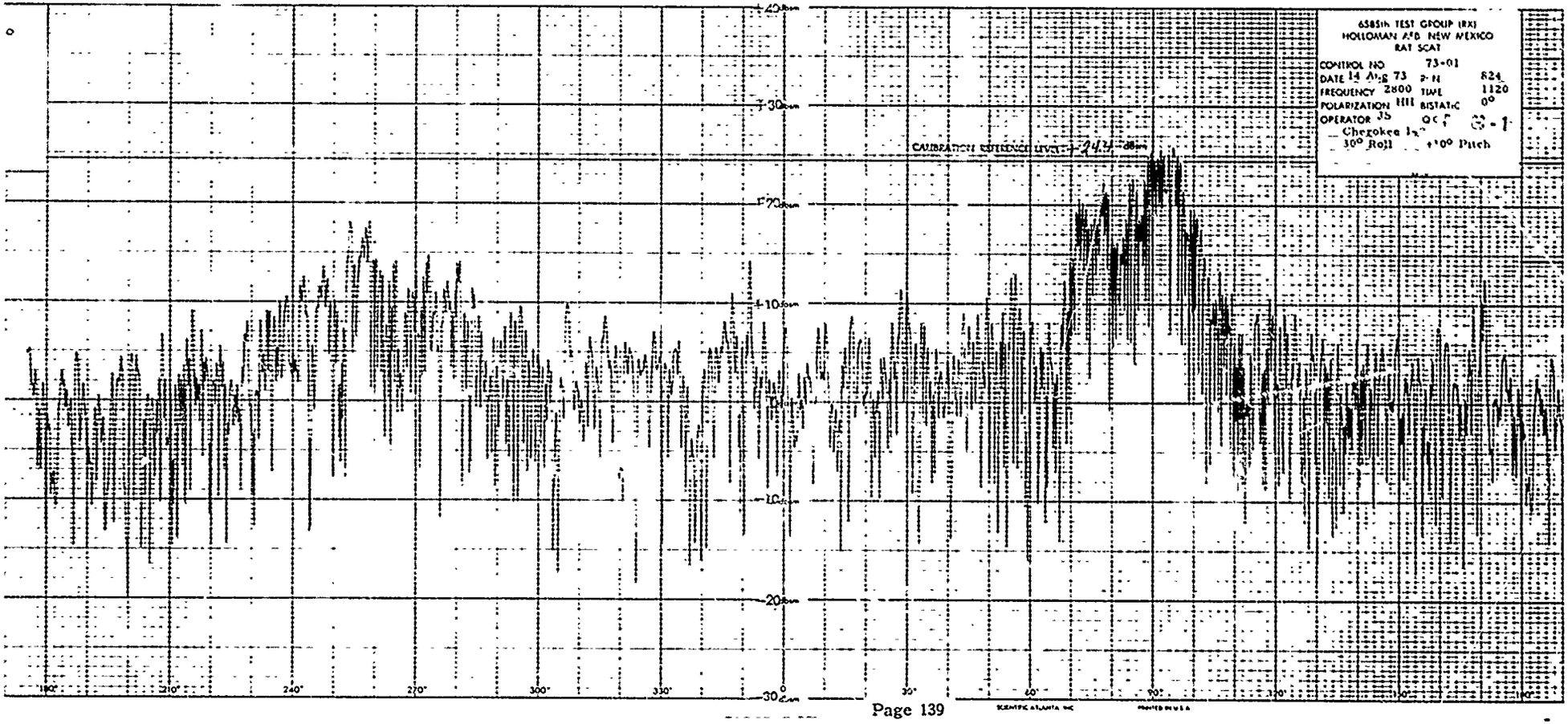

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-91
DATE 13 Aug 73 RUN 773
FREQUENCY 2800 TIME 1155
POLARIZATION HH BISTATIC 00
OPERATOR JS QC DYN QC-1
Cherokee 140
20° Roll +100 Pitch
CALIBRATION REFERENCE LEVEL -20dBsm
+30dBsm
+20
+10
0
-10
-20
-30dBsm
180°
210°
240
270
300°
330
0°
30
60
90°
120
150°
180°

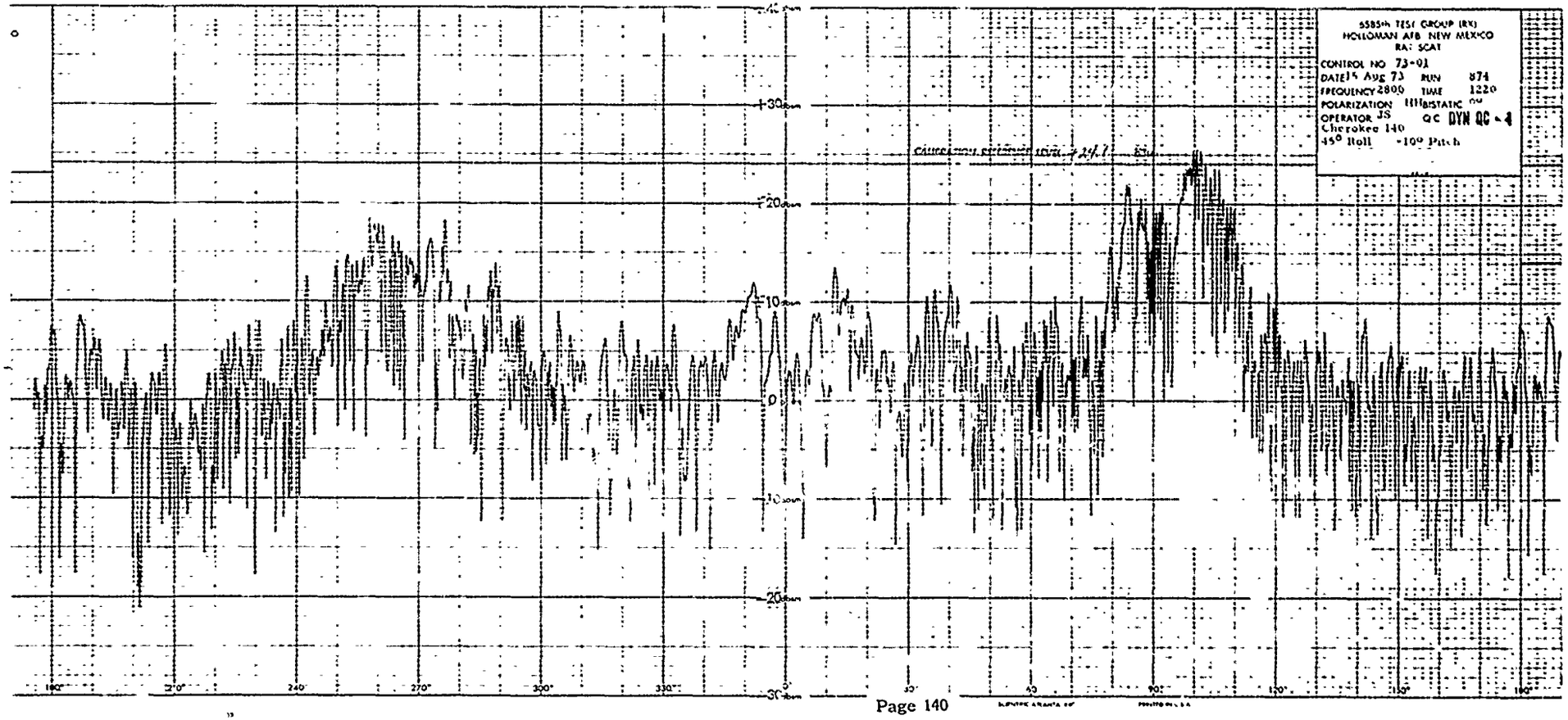

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 781
FREQUENCY 2800 TIME 1535
POLARIZATION HH BISTATIC 0°
OPERATOR MM
Cherokee 140
30° Roll -10° Pitch
CALIBRATION
210°
240°
270°
300°
330°
30°
60°
90°

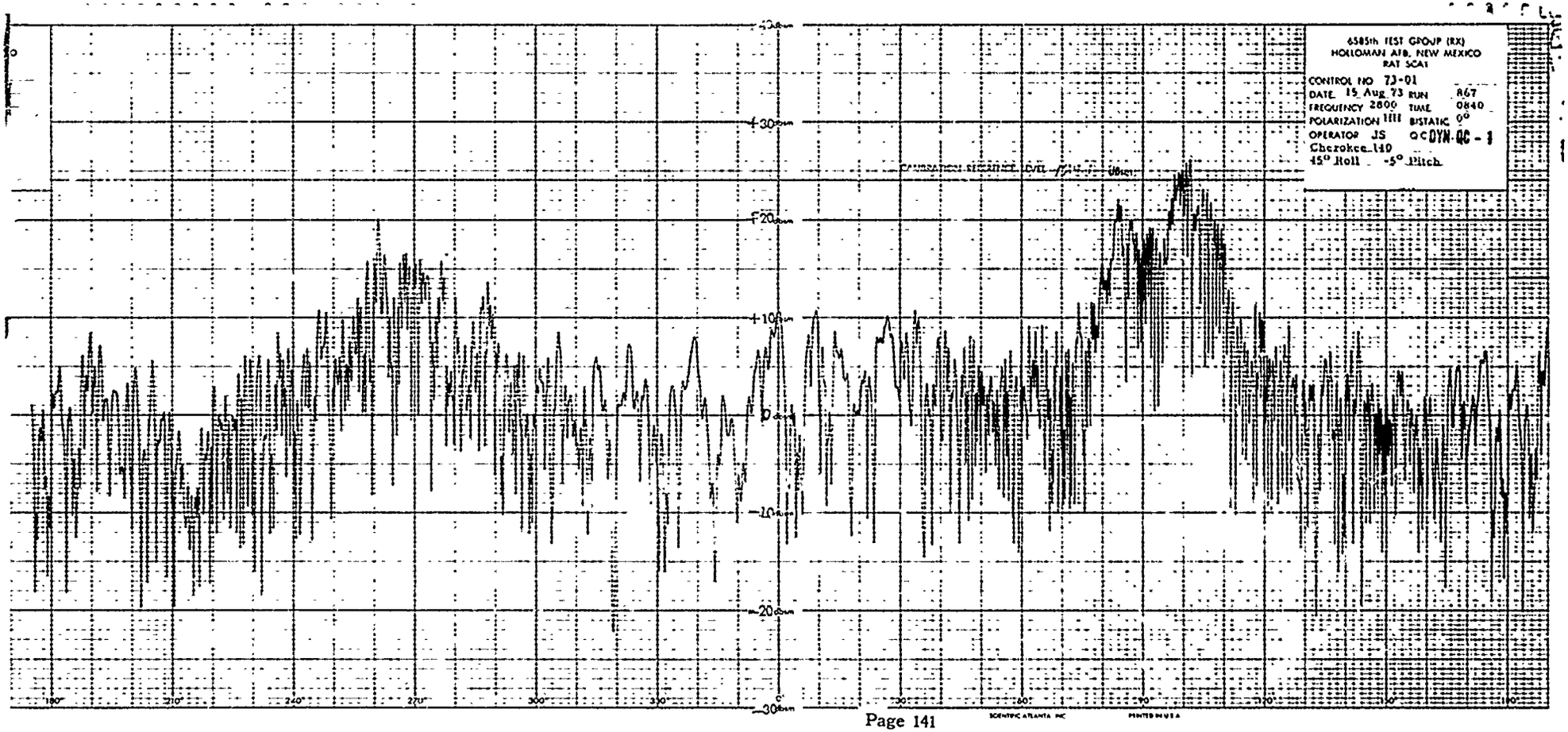

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 768
FREQUENCY 2800 TIME 1820
POLARIZATION HH BISTATIC 0°
OPERATOR MM QC
Cherokee 110
300 Roll -6° Pitch
+30
+20
+10
0
-10
-30
180°
210°
240
270°
300°
330°
0
30°
60°
90°
120°

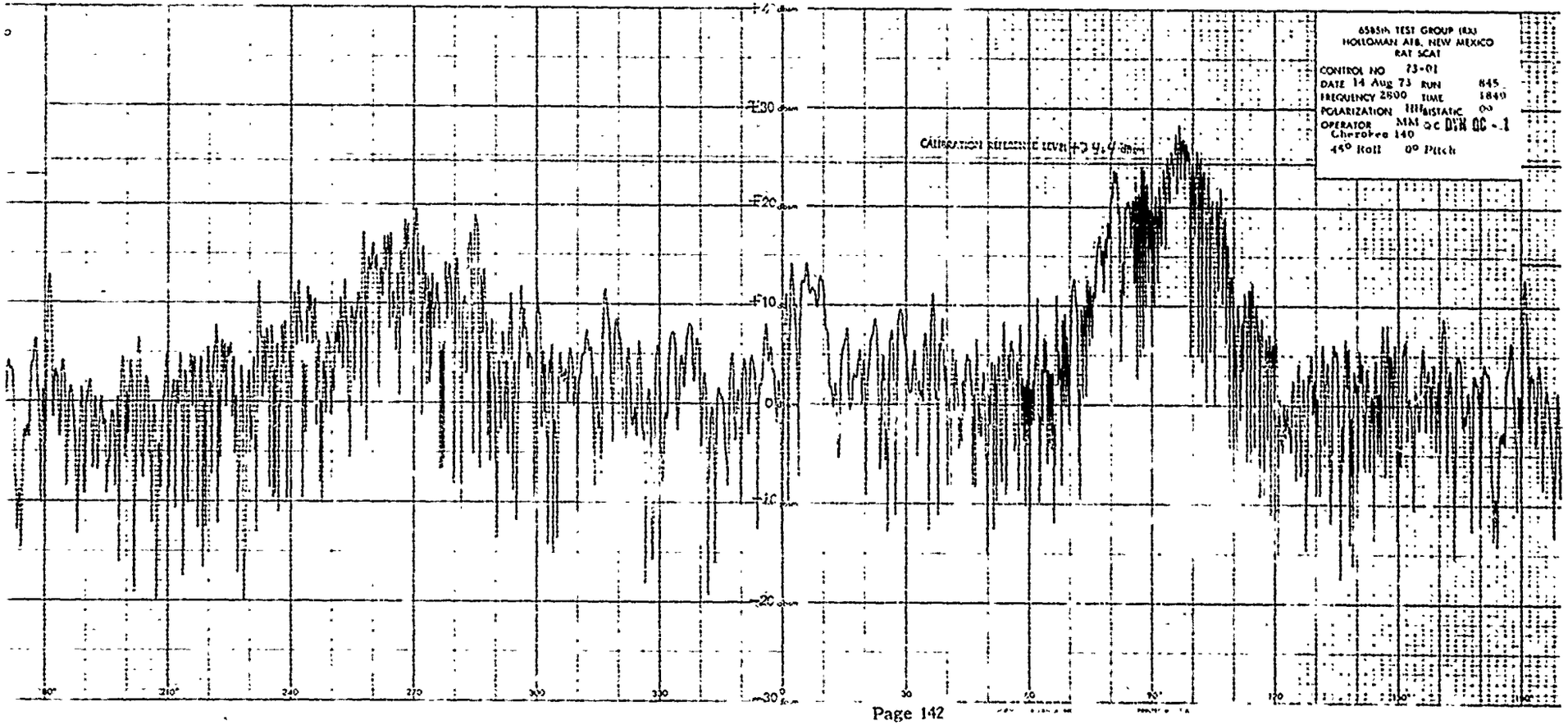

+40 dbm
+30 dbm
+20 dbm
+10 dbm
0
-10 dbm
-20 dbm
-30 dbm
CALIBRATION REFERENCE LEVEL
6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
PAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 810
FREQUENCY 2800 TIME 0710
POLARIZATION HHH BISTATIC 00
OPERATOR JS QC
Cherokee 140
10° Roll 0° Pitch
180°
210°
240
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

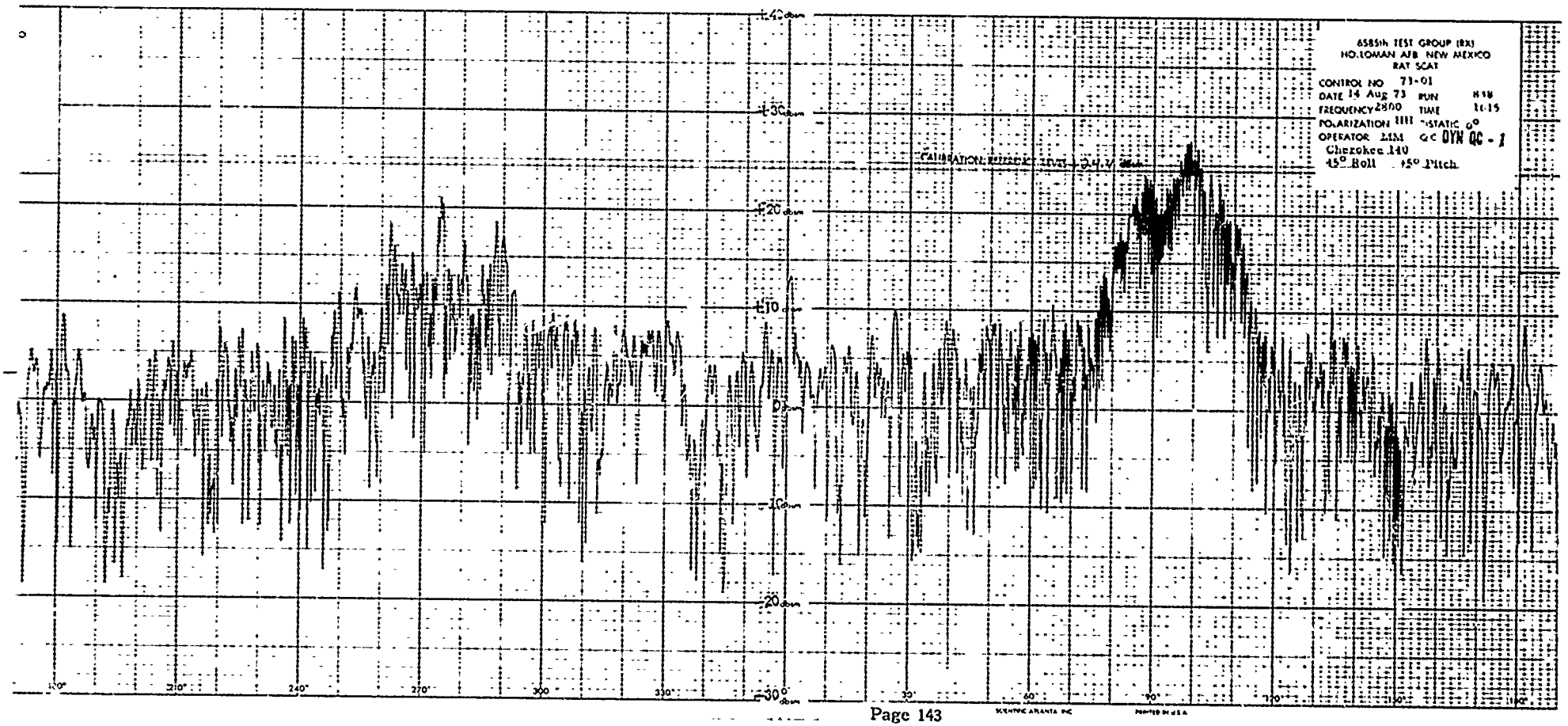

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 817
FREQUENCY 2800 TIME 0910
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC
Cherokee 110
30° Roll
45° Pitch
CALIBRATION REFERENCE (dbsm)
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270
300°
330°
30°
60°
90°
120°
150°
180°

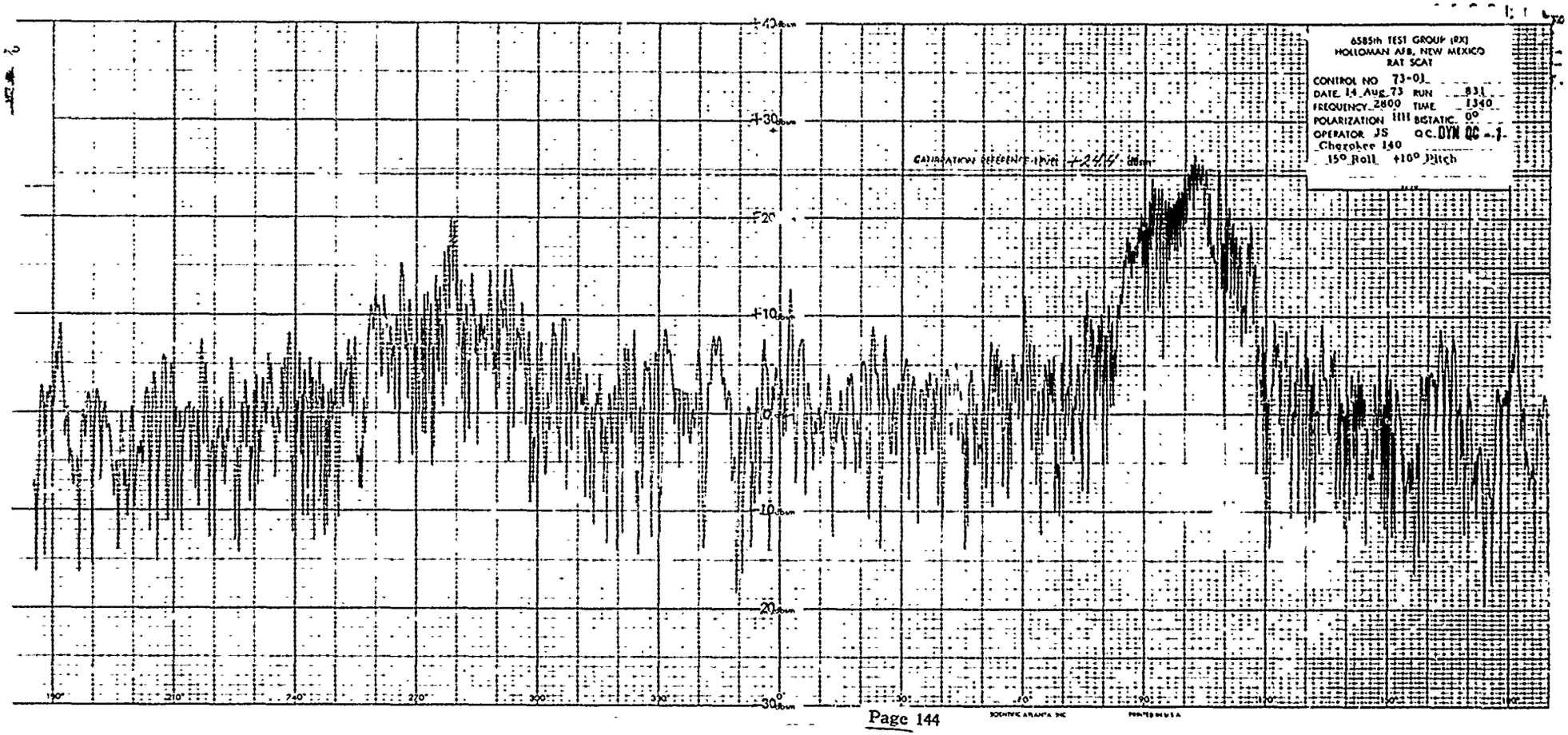

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 AUG 73 P-M 824
FREQUENCY 2800 TIME 1120
POLARIZATION HH BISTATIC 0°
OPERATOR JS
Cherokee
30° Roll +10° Pitch
CALIBRATION REFERENCE LEVEL
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

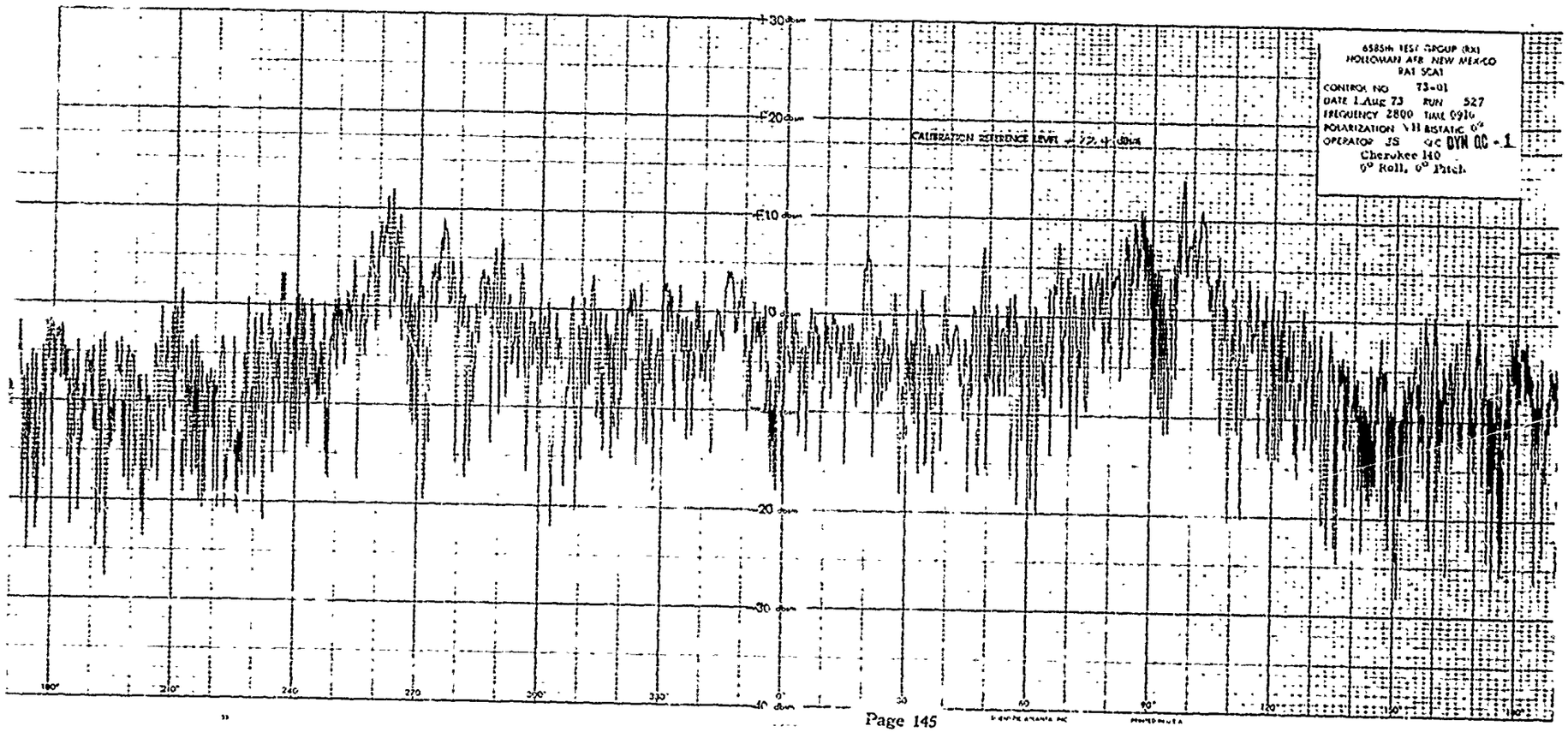

5585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RA: SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 874
FREQUENCY 2800 TIME 1220
POLARIZATION
OPERATOR JS QC DYN QC - 4
Cherokee 140
45° Roll -10° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

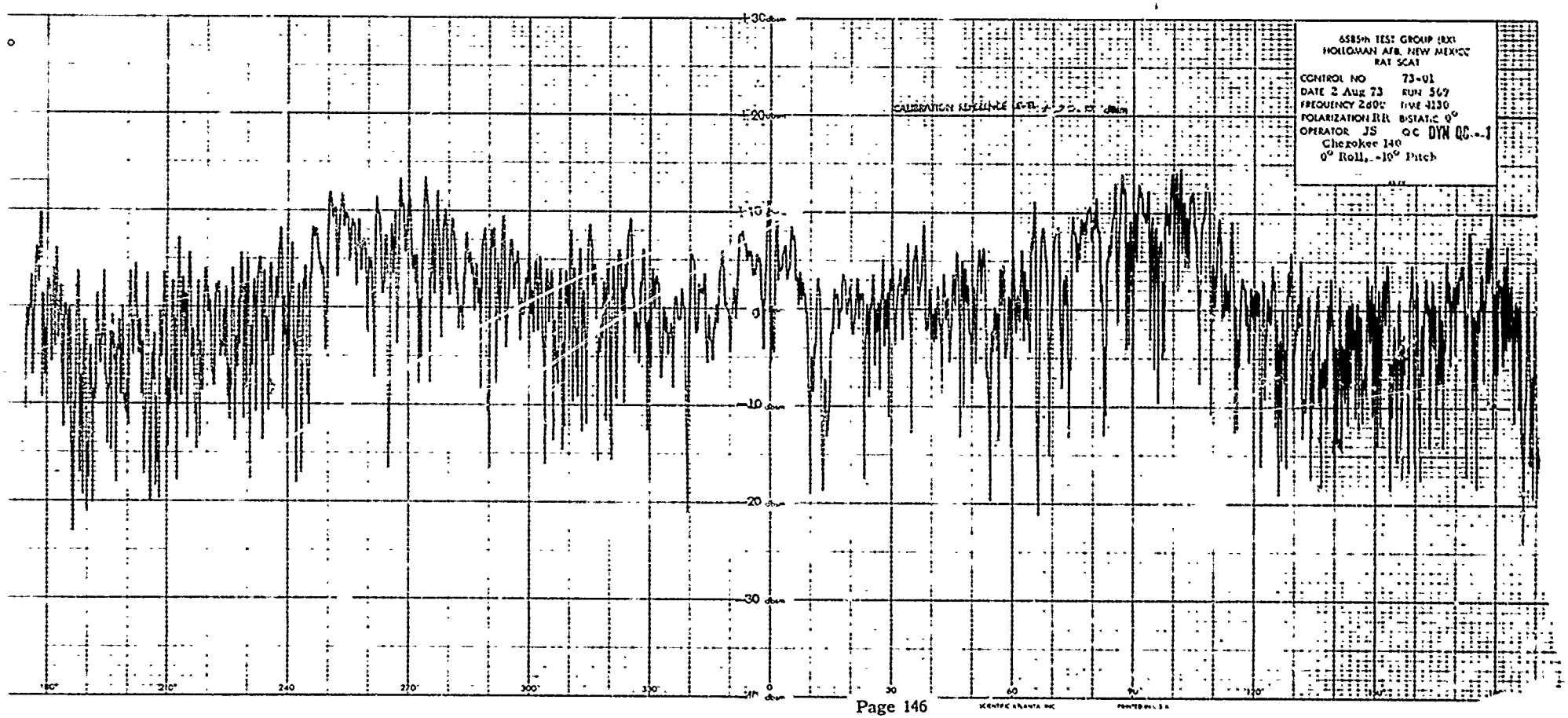

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 867
FREQUENCY 2800 TIME 0840
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC DYN-QC - 1
Cherokee 140
45° Roll -5° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

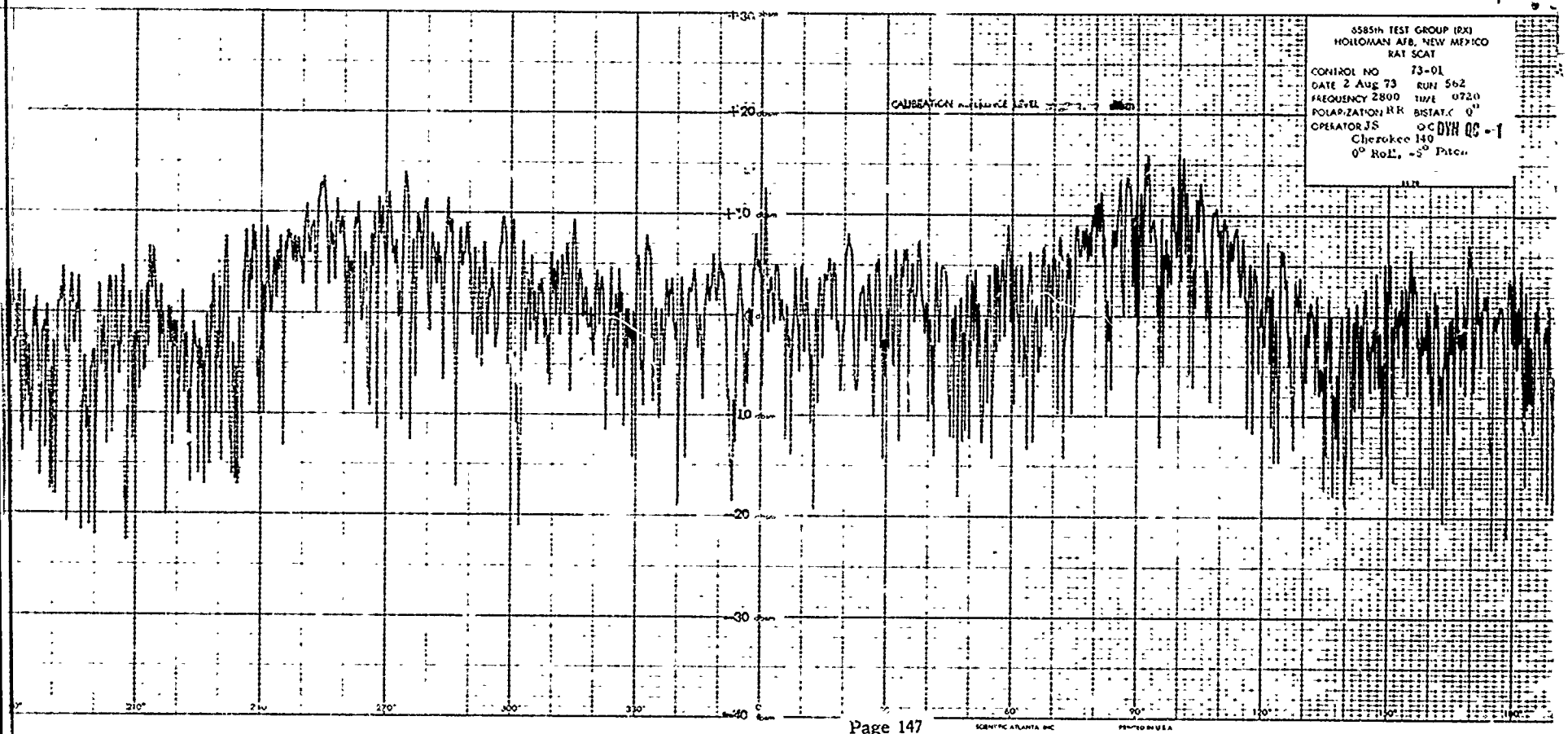

65th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 845
FREQUENCY 2800 TIME 1849
POLARIZATION BISTATIC
OPERATOR MAJ QC DIR QC - 1
Cherokee 140
45° Roll 0° Pitch
+30
+20
+10
0
-10
-20
-30
210°
240
270
300
330
30
60
90°
120

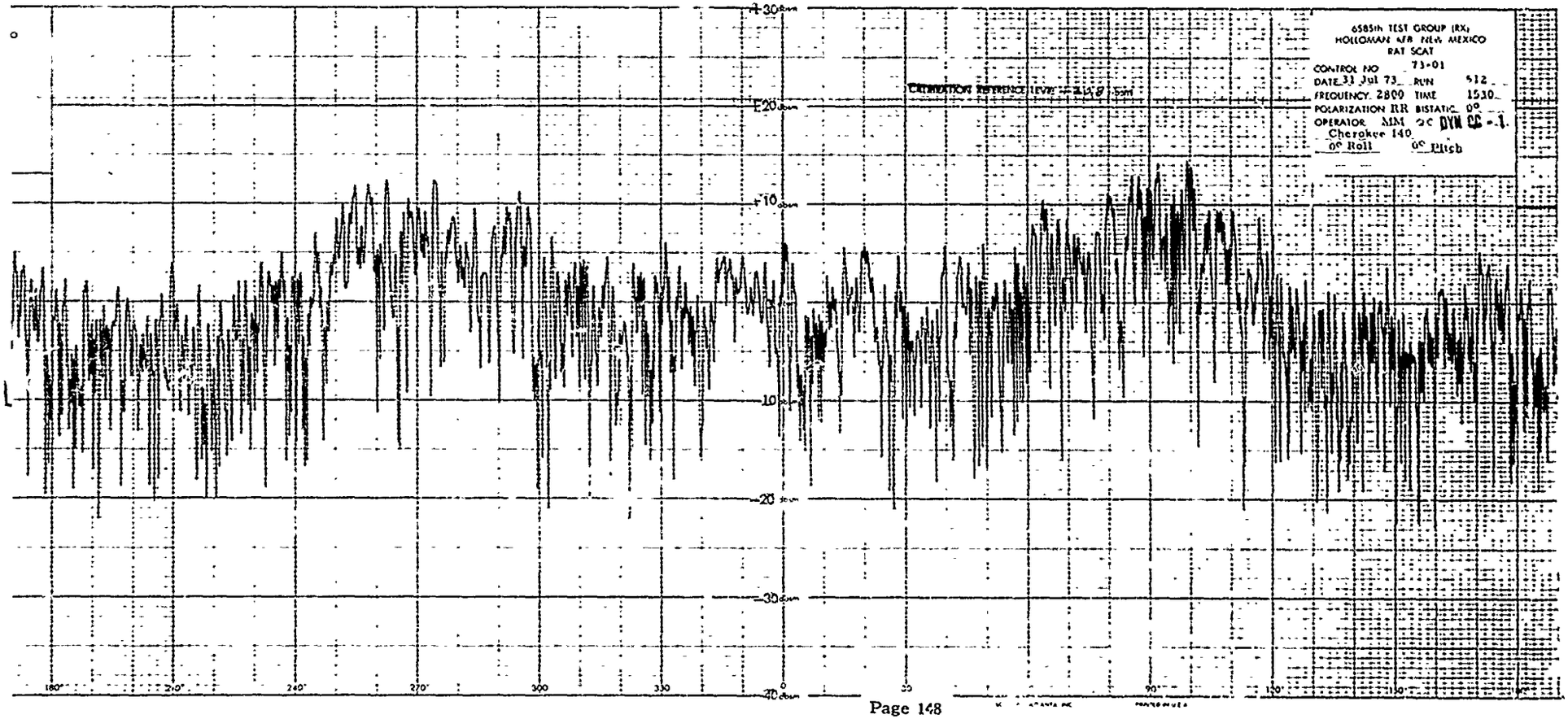

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN R18
FREQUENCY 2800 TIME 1615
POLARIZATION HH BISTATIC 0°
OPERATOR LTM QC DYN QC - 1
Cherokee 140
45° Roll +5° Pitch
CALIBRATION: REFERENCE LEVEL + 0.4 V
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
210°
240°
270°
300°
330°
30°
60°
90°

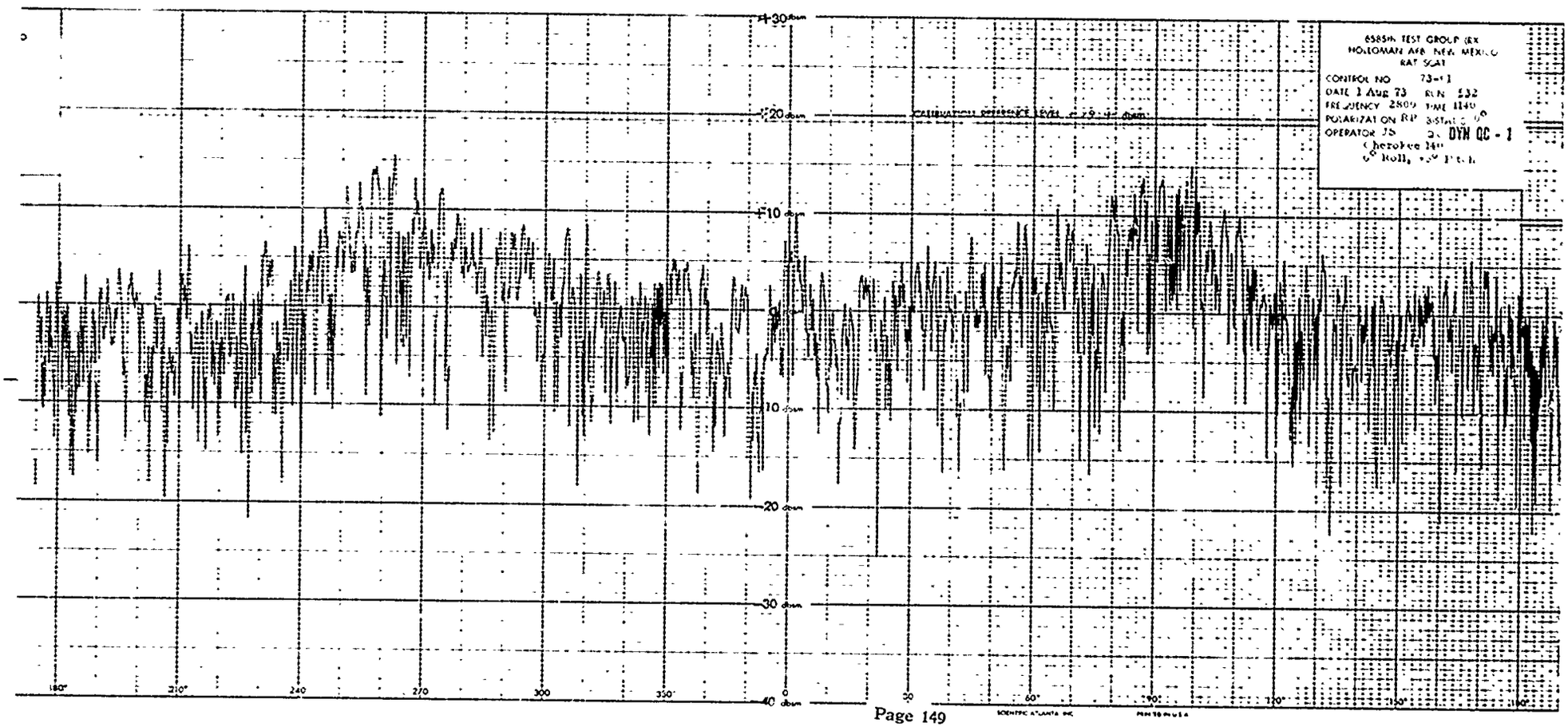

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 831
FREQUENCY 2800 TIME 1340
POLARIZATION IIII BISTATIC 0°
OPERATOR JS QC DYN QC -1
Cherokee 140
15° Roll +10° Pitch
CALIBRATION REFERENCE LEVEL +24/4 dBsm
+40dBsm
+30dBsm
+20
+10dBsm
0
-10dBsm
-20dBsm
-30dBsm
190°
210°
240°
270°
300°
330°
30°
90°
150°

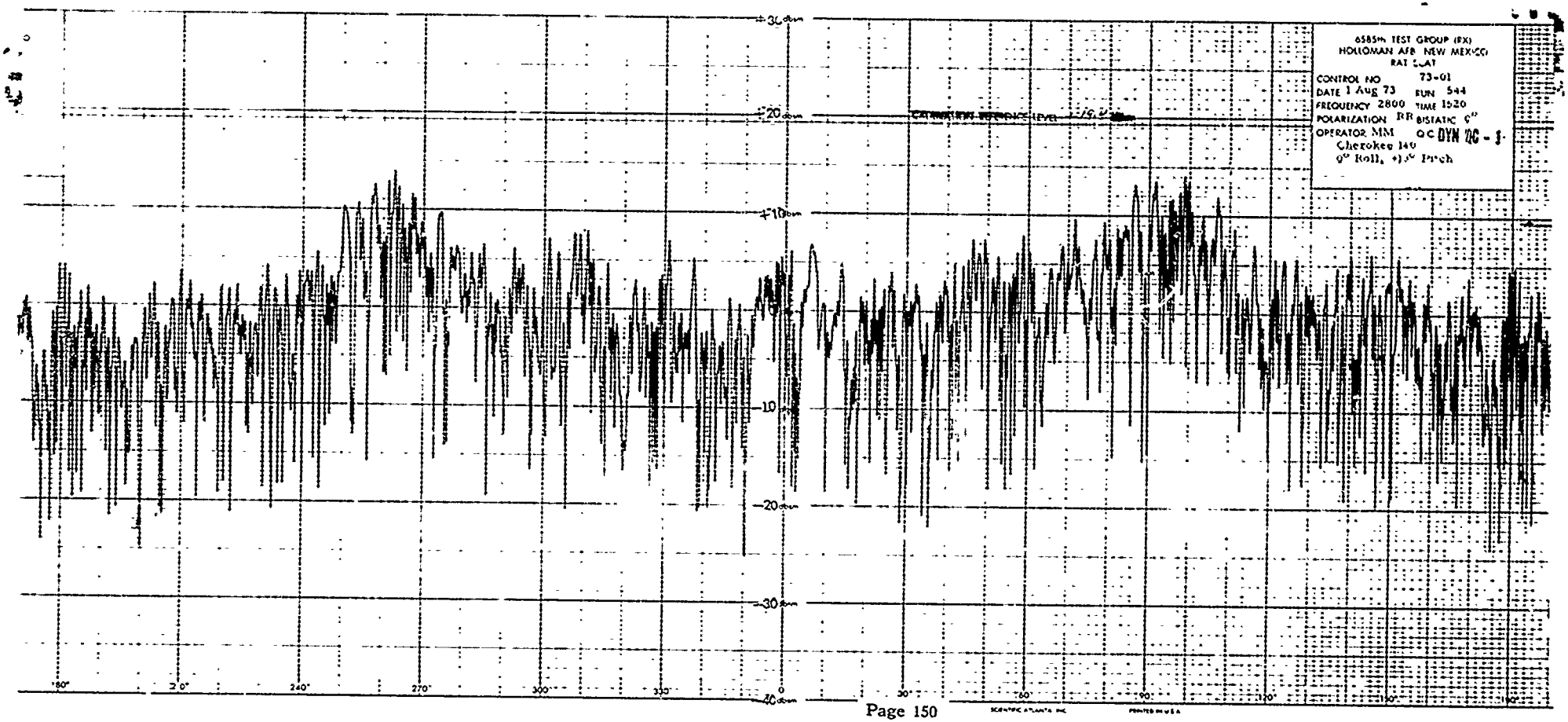

6585th TEST GROUP (Rx)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 1 Aug 73 RUN 527
FREQUENCY 2800 TIME 0916
POLARIZATION V-H BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
9° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL = 77.4 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
-40 dBsm
180°
210°
240°
270°
300°
330°
0°
30
60
90°
120°
150°
180°

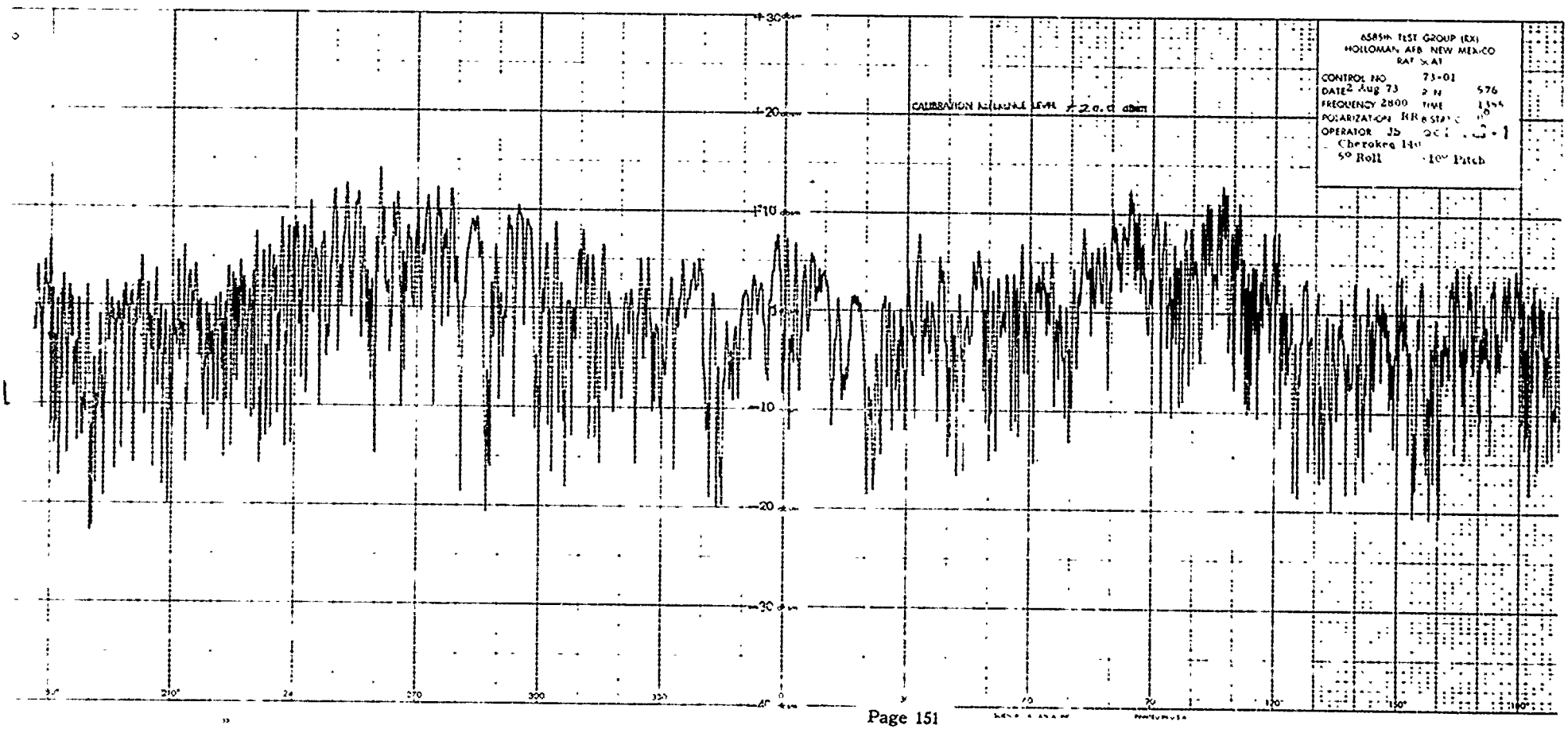

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 569
FREQUENCY 2d0E FINE 1230
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
0° Roll, -10° Pitch
CALIBRATION REFERENCE
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270°
300°
330°
0
30
60
90°
120°

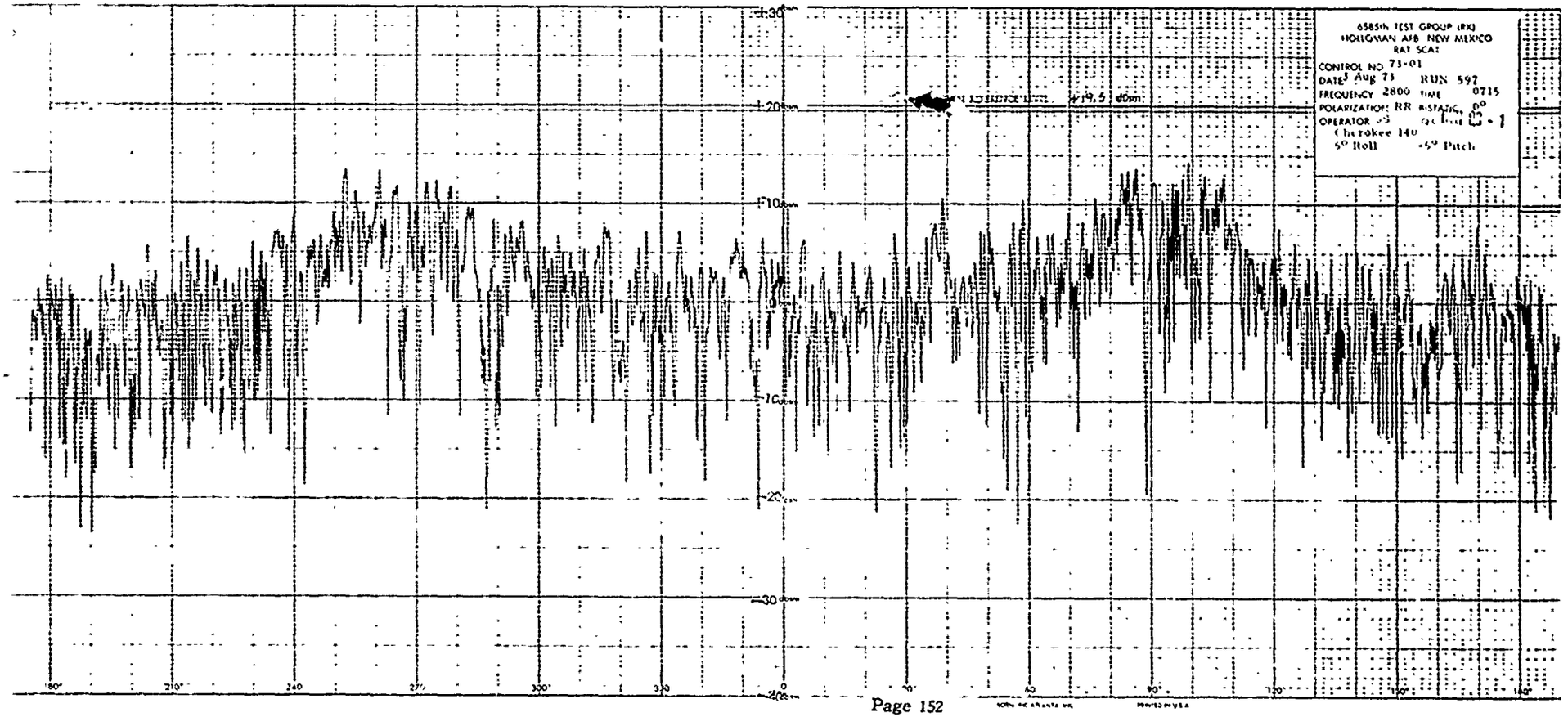

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 562
FREQUENCY 2800 TIME 0720
POLARIZATION RR BISTAT.C 0°
OPERATOR JS QC DVH QC -1
Cherokee 140
0° Roll, -5° Pitch
CALIBRATION REFERENCE LEVEL
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
10 dBsm
-20 dBsm
-30 dBsm
-40 dBsm
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

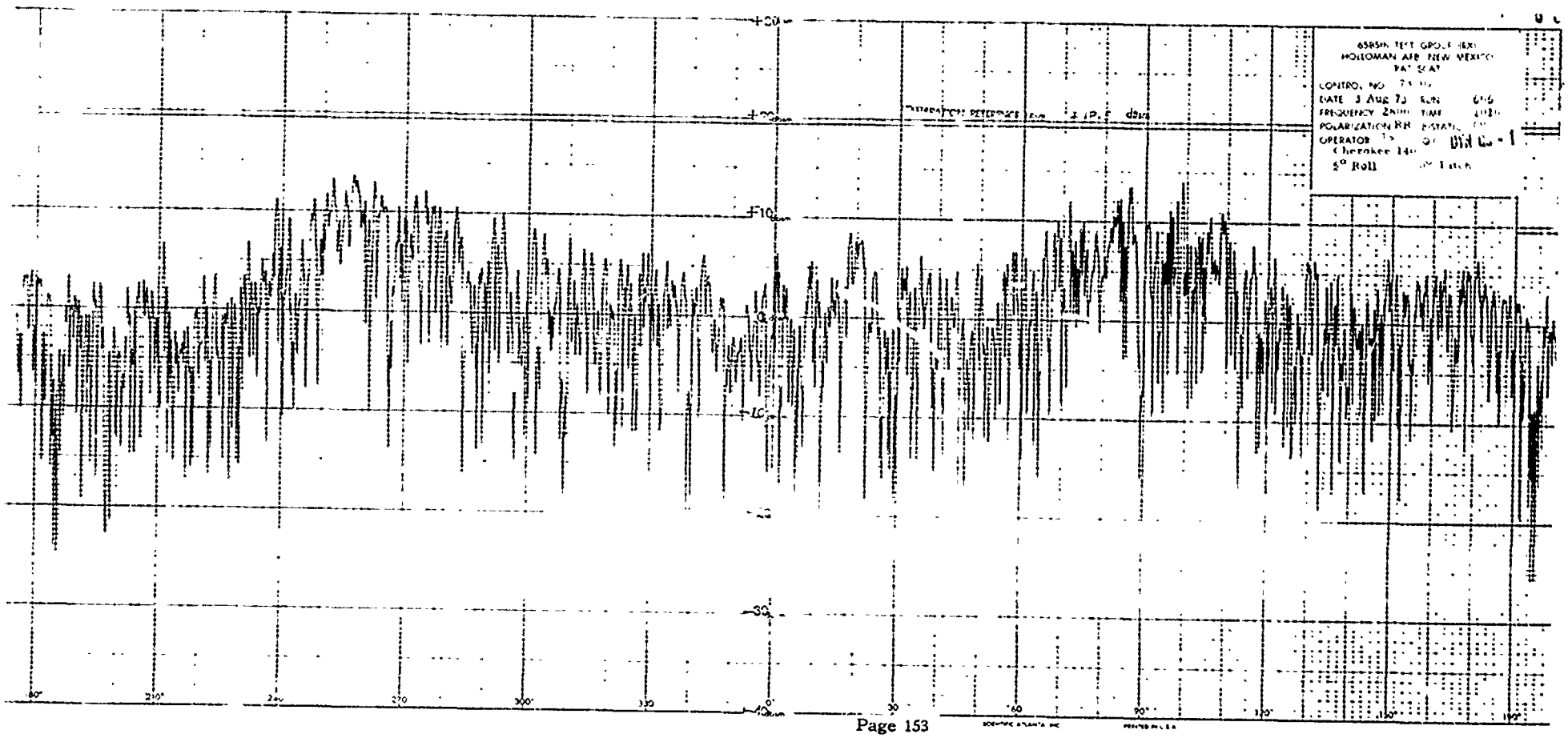

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 31 Jul 73 RUN 512
FREQUENCY 2800 TIME 1530
POLARIZATION RR BISTATIC 0°
OPERATOR MM ∅C DYN CR -1
Cherokee 140
0° Roll 0° Pitch
+30
+20
+10
-10
-20
-30
180°
210°
240°
270°
300
330
0
30
90
150

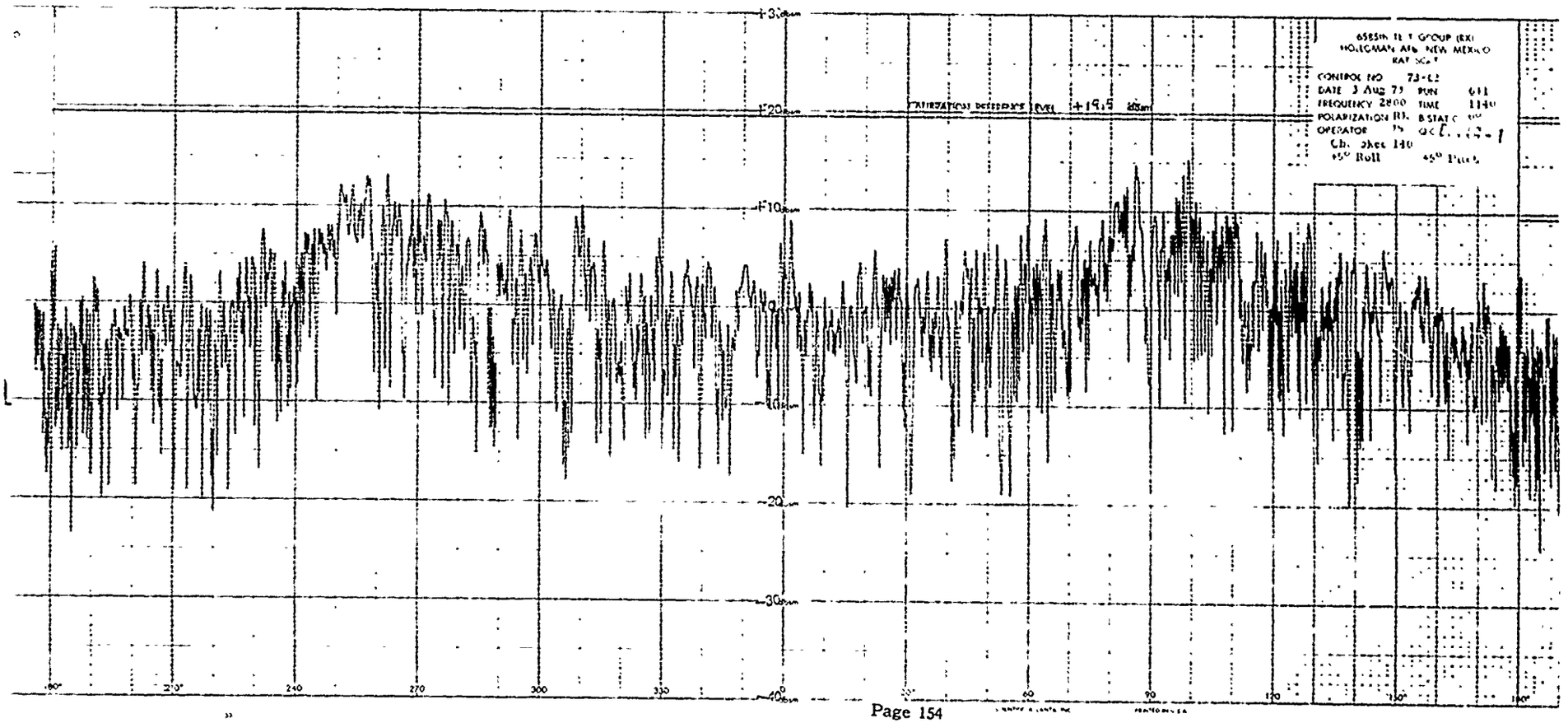

6585th TEST GROUP (RX
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-41
DATE 1 Aug 73 RUN 532
FREQUENCY 2809 TIME 1140
POLARIZATION RP
OPERATOR JS
Cherokee 14°
0° Roll, +5° Pitch
DYN QC - 1
+30 dbsm
+20 dbsm
+10 dbsm
0
-10 dbsm
-20 dbsm
-30 dbsm
-40 dbsm
180°
210°
240
270
300
330°
0
30
60°
90°
120°
150°
180°

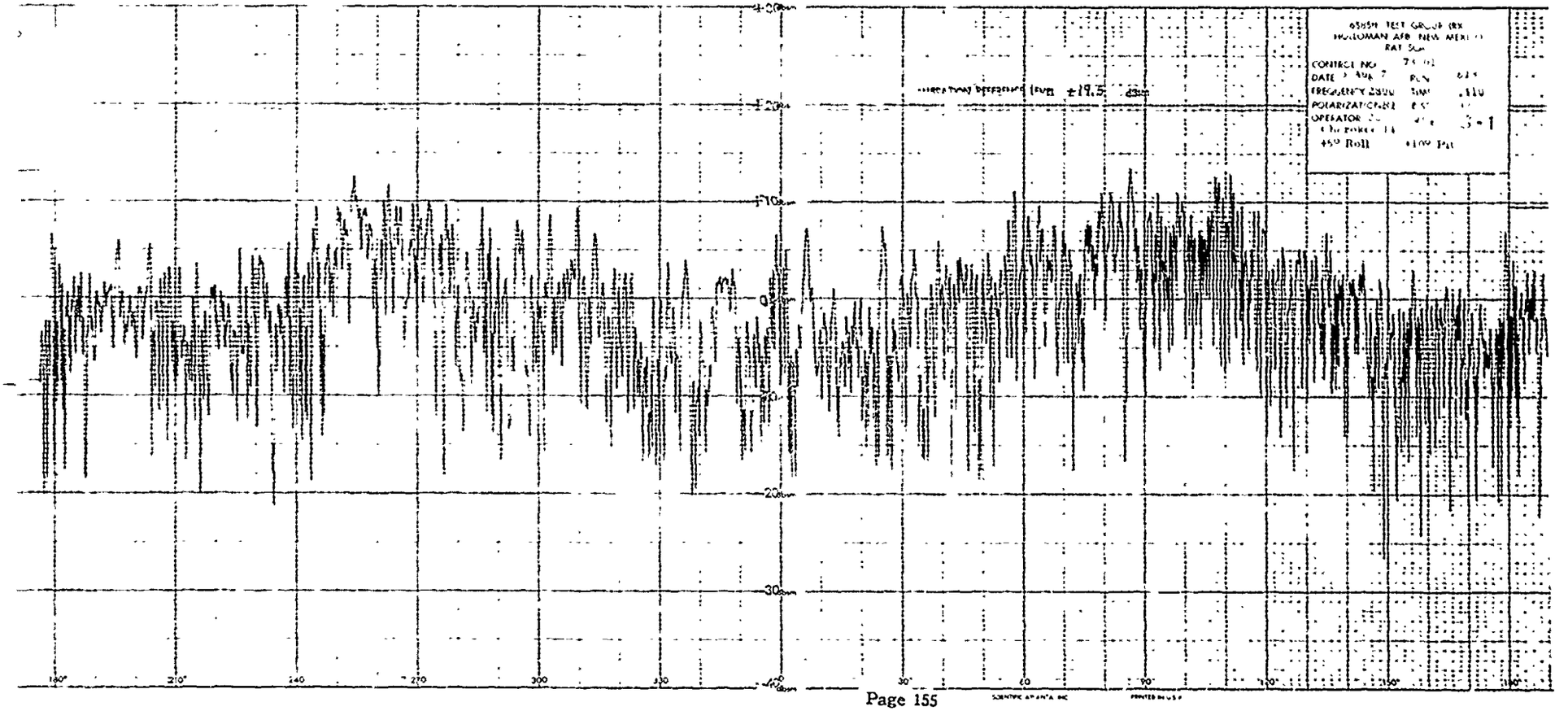

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT 2 LAT
CONTROL NO 73-01
DATE 1 Aug 73 RUN 544
FREQUENCY 2800 TIME 1520
POLARIZATION RR BISTATIC 0°
OPERATOR MM QC DYN QC - 1
Cherokee 140
0° Roll, +1° Pitch
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
-40 dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°

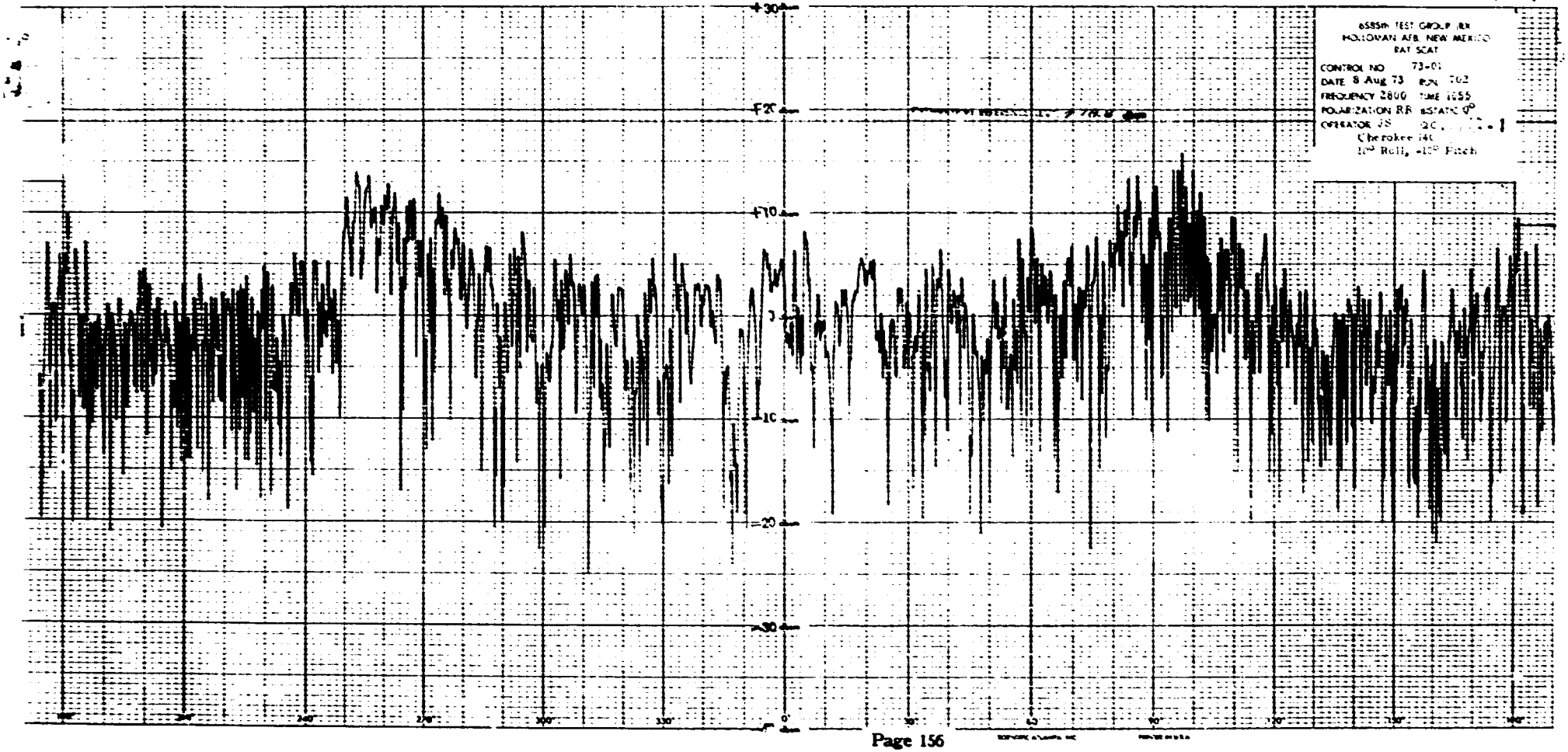

6585th TEST GROUP (EX)
HOLLOMAN AFB NEW MEXICO
CONTROL NO 73-01
DATE 2 Aug 73
FREQUENCY 2800
OPERATOR JS
Cherokee 140
5° Roll
10° Pitch
CALIBRATION MEASURE LEVEL = 20.0 dbsm
+30
+20
+10
0
-10
-20
-30

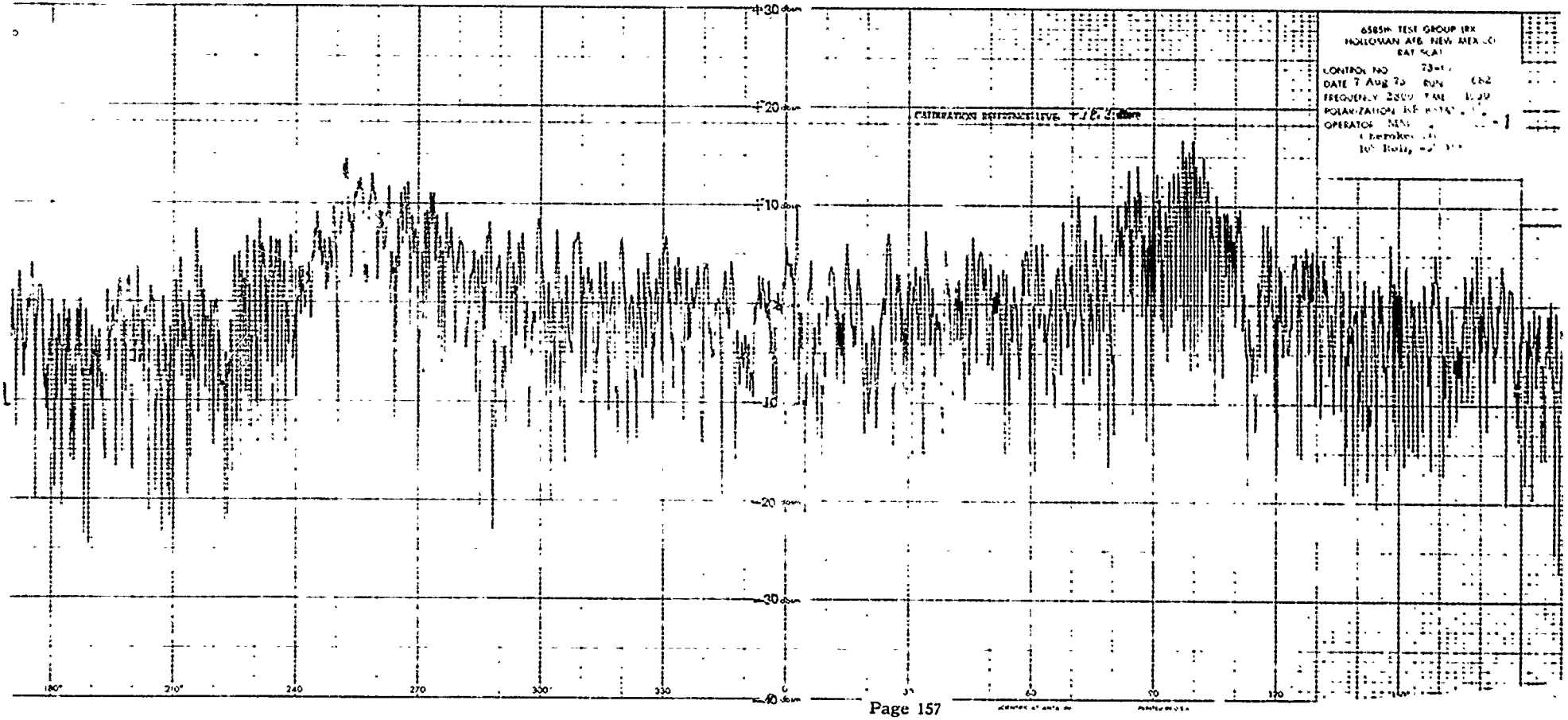

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73 RUN 597
FREQUENCY 2800 TIME 0715
POLARIZATION: RR BISTATIC 0°
OPERATOR
Cherokee 140
6° Roll -6° Pitch
-19.5 dBsm
+30
+20
+10
0
-10
-20
-30
210°
240
270
300°
330
0
30
60
90°
120
150
180°

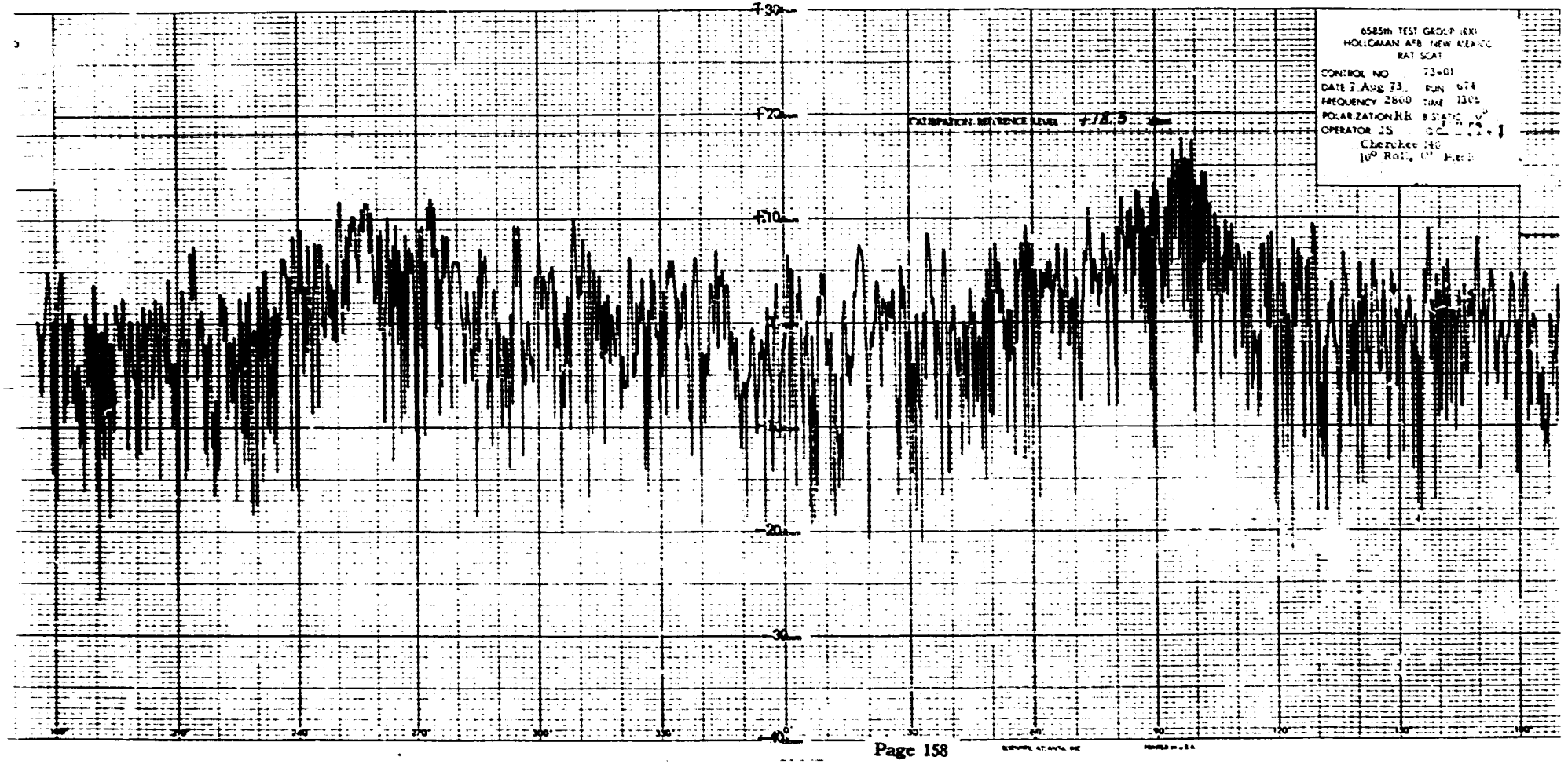

+20
+10
0
-10
-20
-30
Cherokee
5° Roll

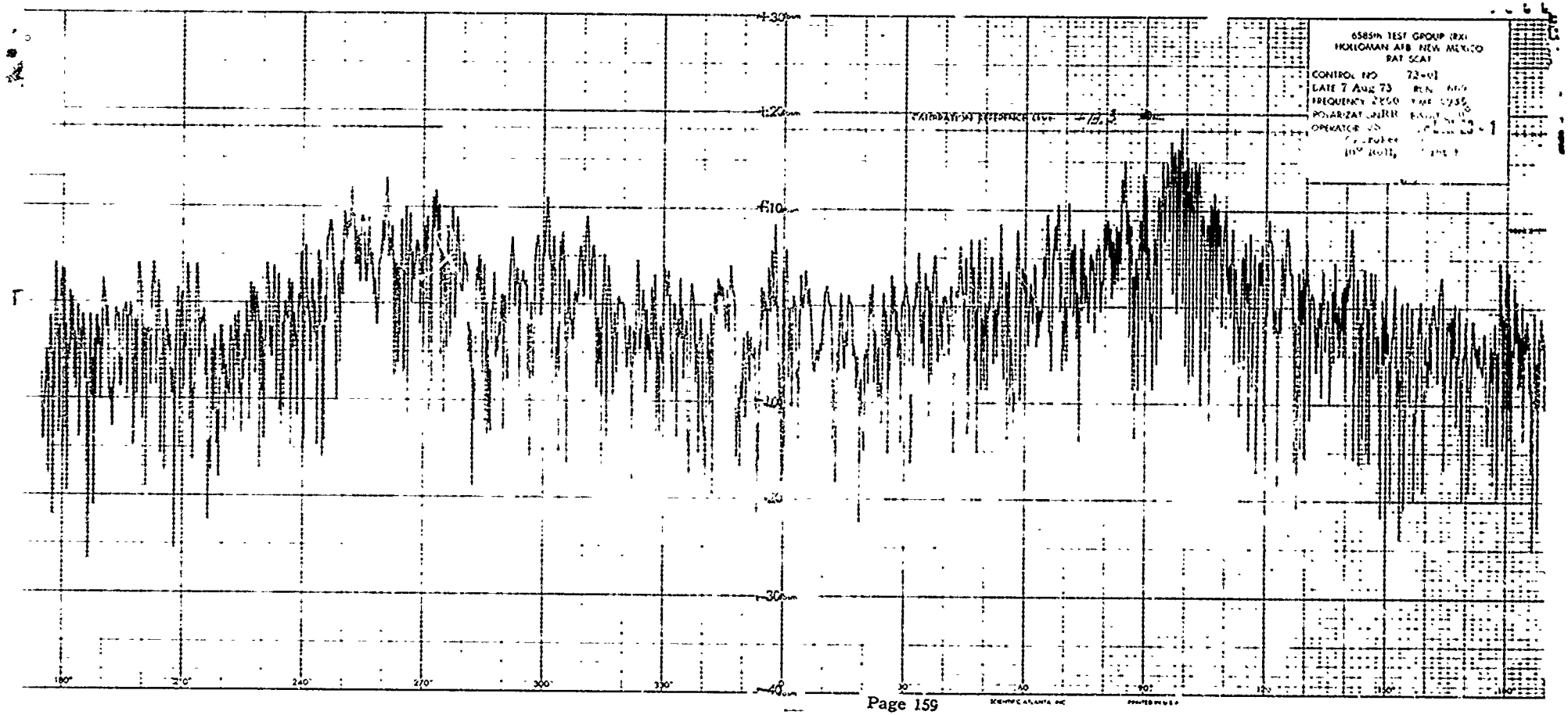

6585th TEST GROUP (EX)
HOLLOMAN AFB, NEW MEXICO
CONTROL NO 73-62
DATE 3 Aug 73 RUN 611
FREQUENCY 2800 TIME 1140
POLARIZATION H
OPERATOR
Ch 2 Sec 140
45° Roll
45° Pitch
+30
+20
+10
0
-10
-20
-30
-40
60
90
120
150
180
210
240
270
300
330
0
30

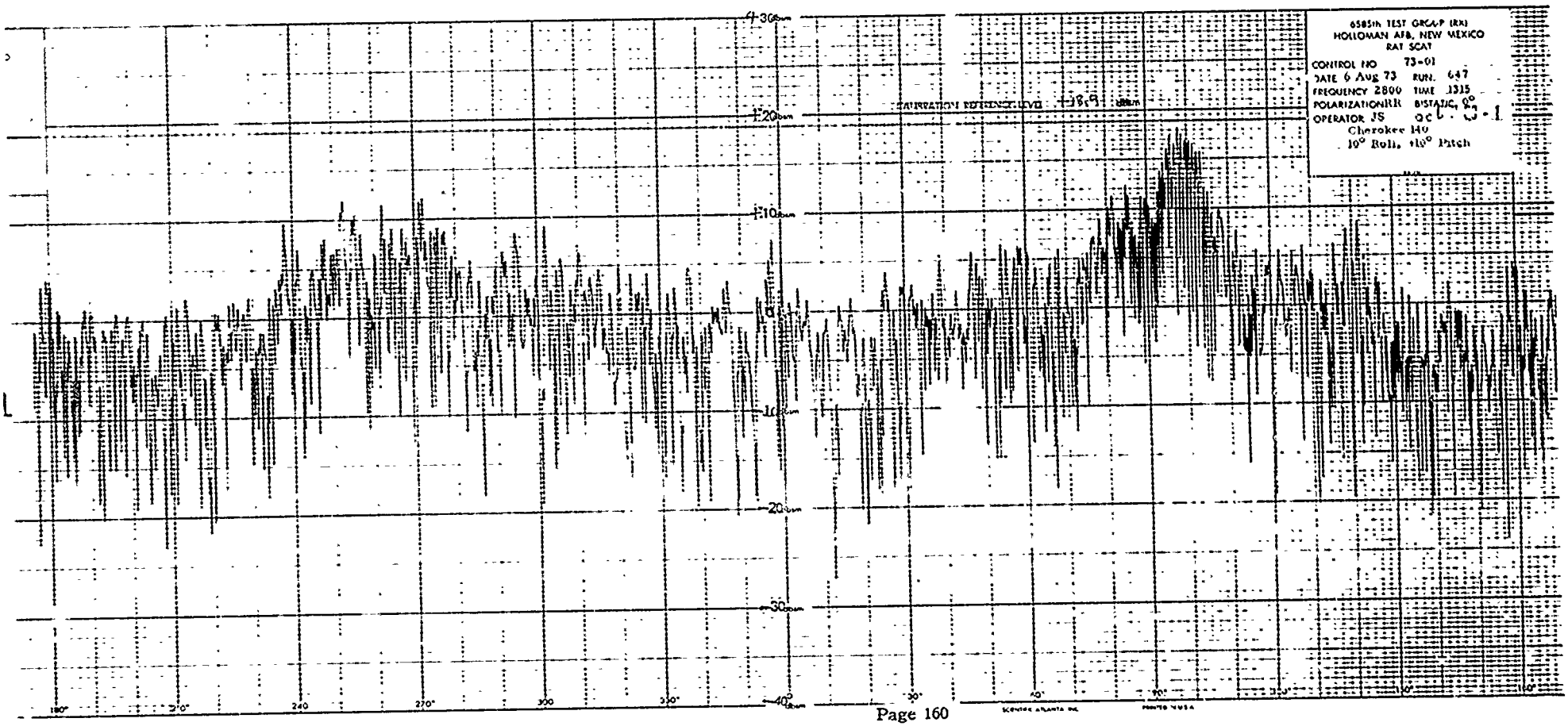

6585th TEST GROUP (RX
HOLLOMAN AFB, NEW MEXICO
RAT Scan
CONTROL NO.
DATE
FREQUENCY 2300
POLARIZATION
OPERATOR
45° Roll
+10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
180°
210°
240
270
300
330
0°
30°
60
90°
120°
150°
180°

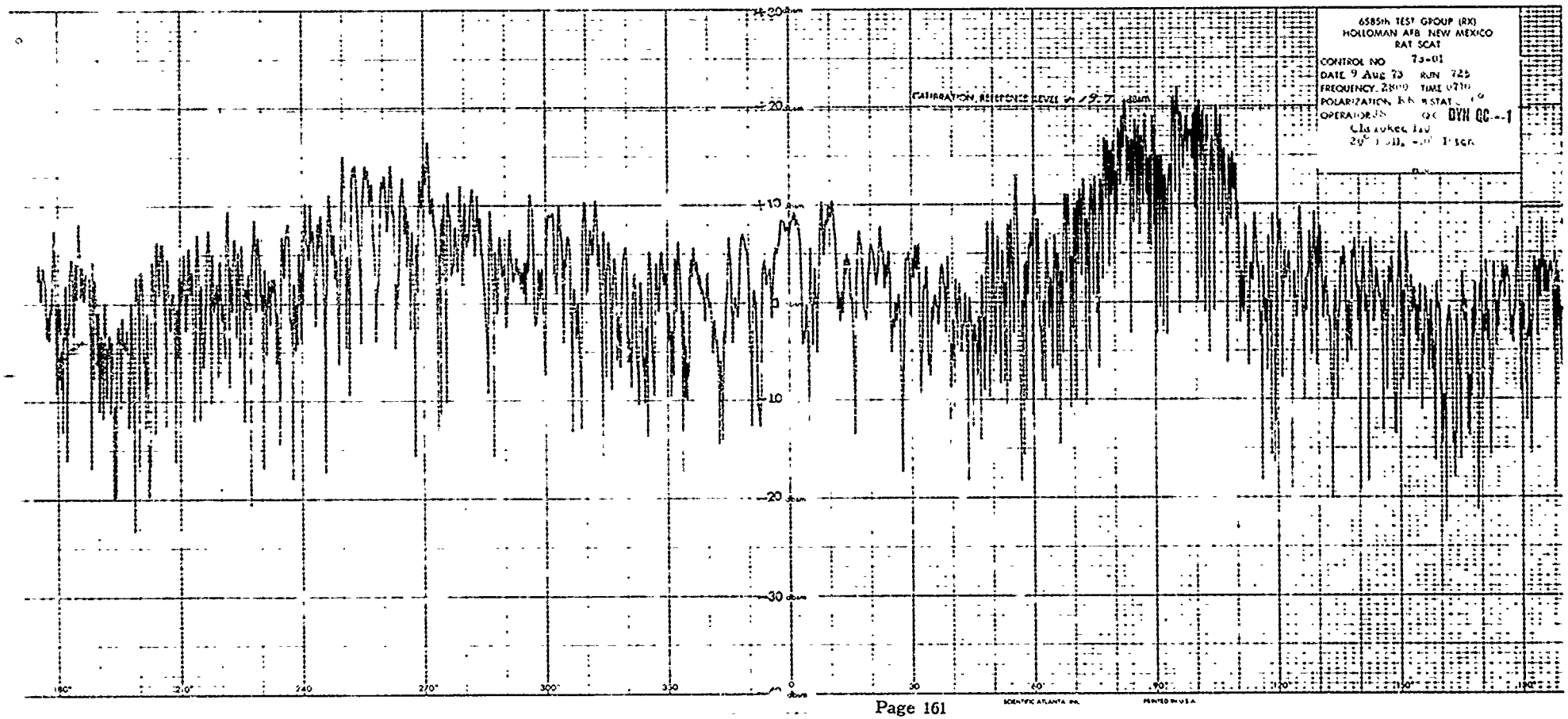

6585th TEST GROUP (RR
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 8 Aug 73 RUN 702
FREQUENCY 2800 TIME 1655
POLARIZATION RR ±STATIC 0°
OPERATOR JS
Cherokee 140
10° Roll, +15° Pitch
+30
+20
+10
0
-10
-20
-30

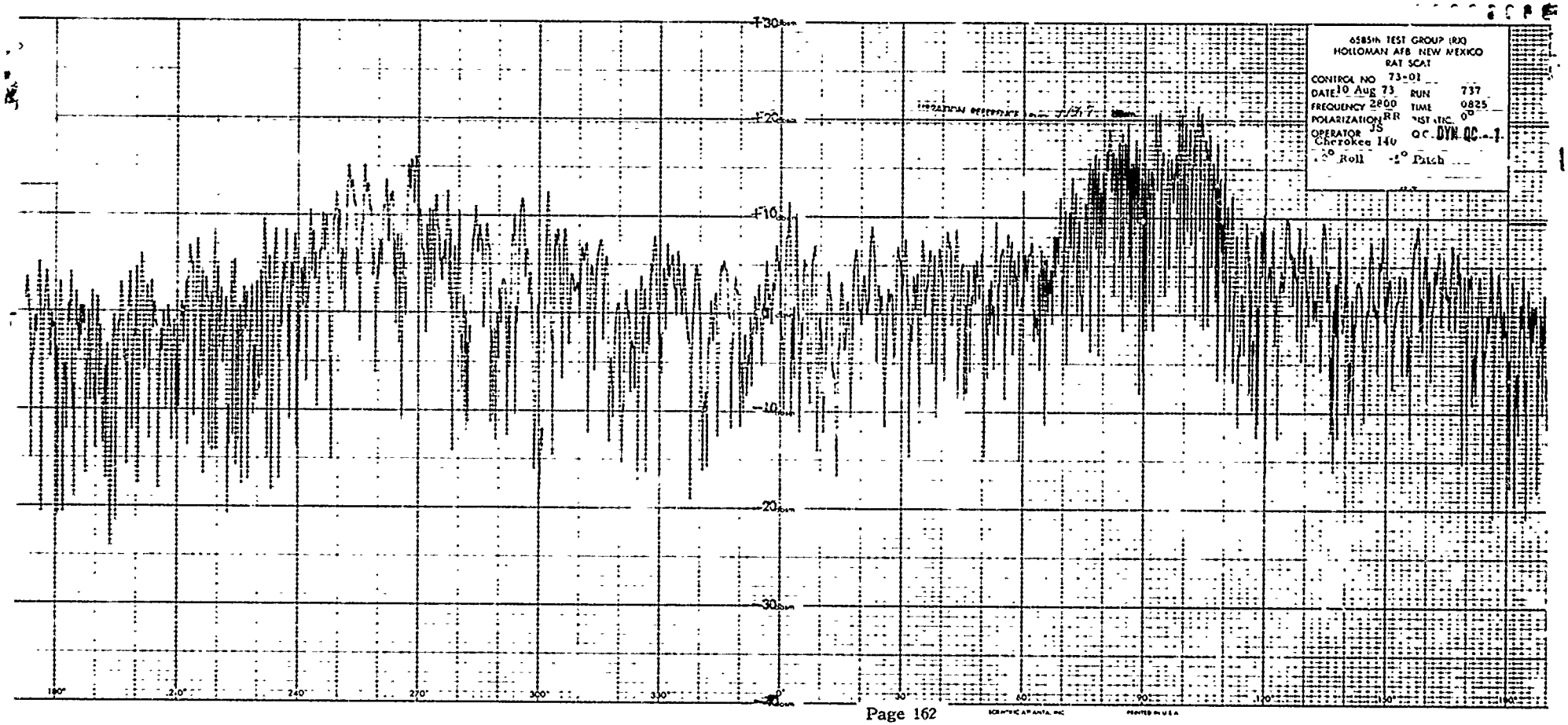

6585th TEST GROUP (RX
HOLLOMAN AFB, NEW MEX
RAT SCAT
CONTROL NO
DATE 7 Aug 73
RUN
FREQUENCY
TIME
POLARIZATION
OPERATOR
+30 dbsm
+20 dbsm
+10 dbsm
-10
-20 dbsm
-30 dbsm
-40 dbsm
180°
210°
240
270
300
330
0
30
60
90
120

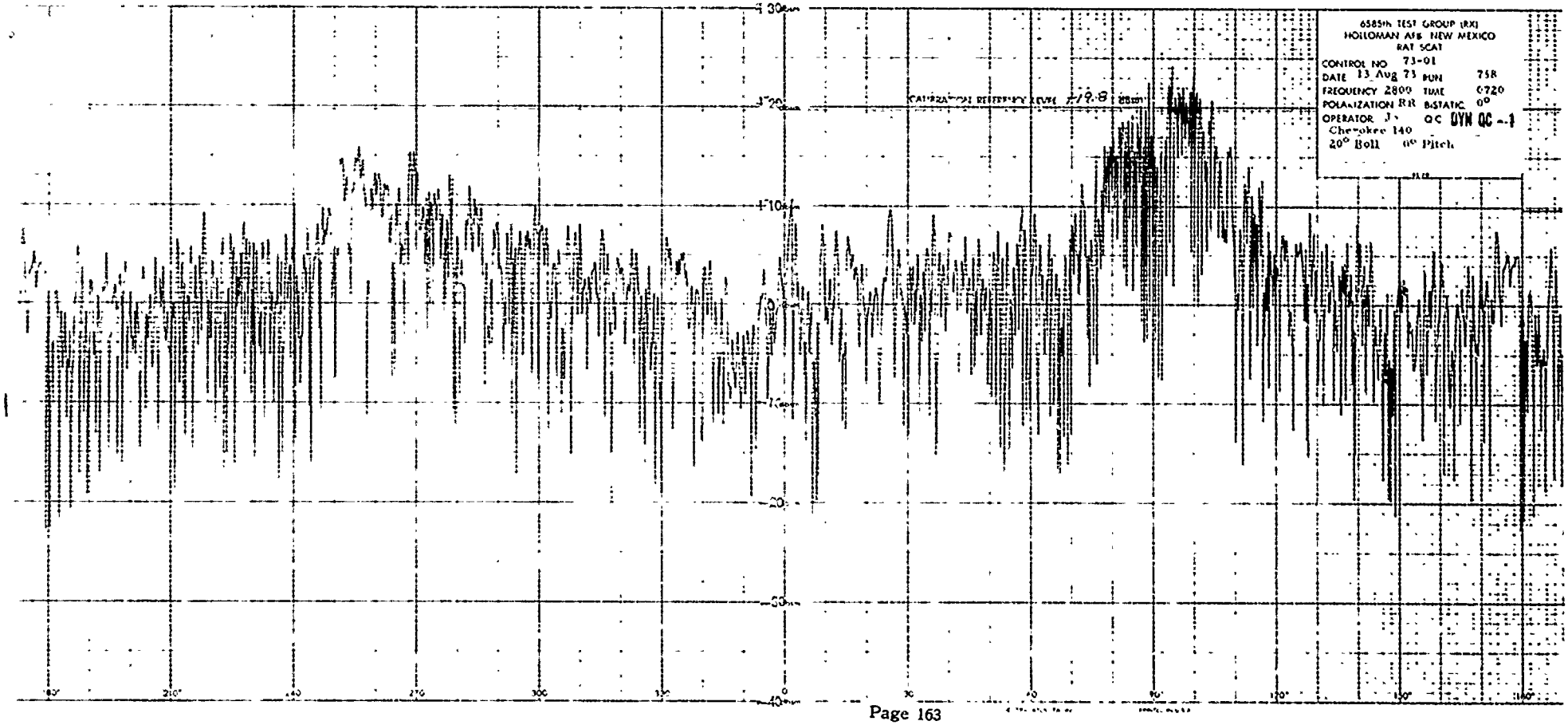

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73
RUN 074
FREQUENCY 2800
TIME 1305
POLARIZATION RR
OPERATOR JS
Cherokee 140
-10
-20
-30
-40
0
30
60
90
120
150
180
210
240
270
300
330

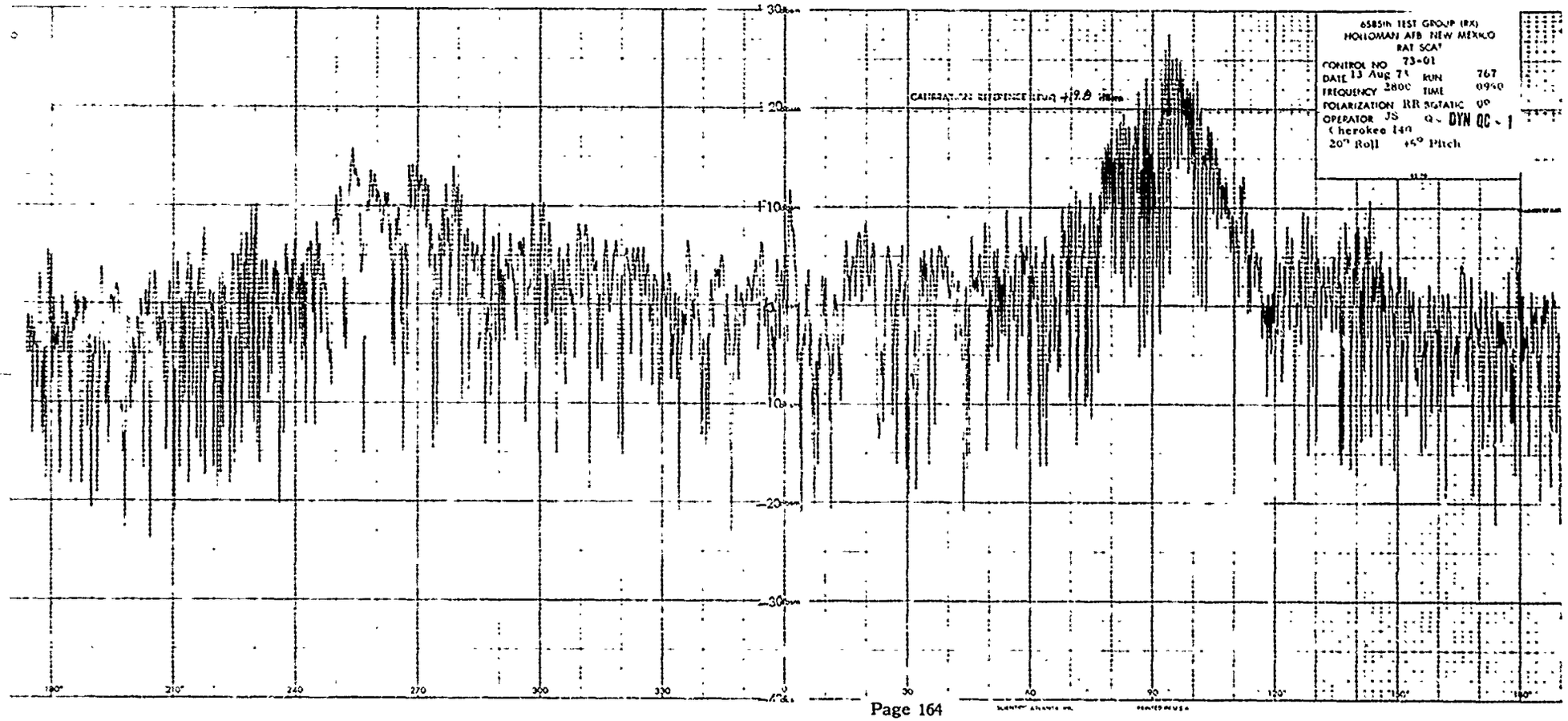

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
PAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73
FREQUENCY 2250
POLARIZATION RR
OPERATOR VS
10° Roll
+30
+20
+10
-10
-20
-30
-40
180°
210°
240°
270°
300°
330°
30
60
90°

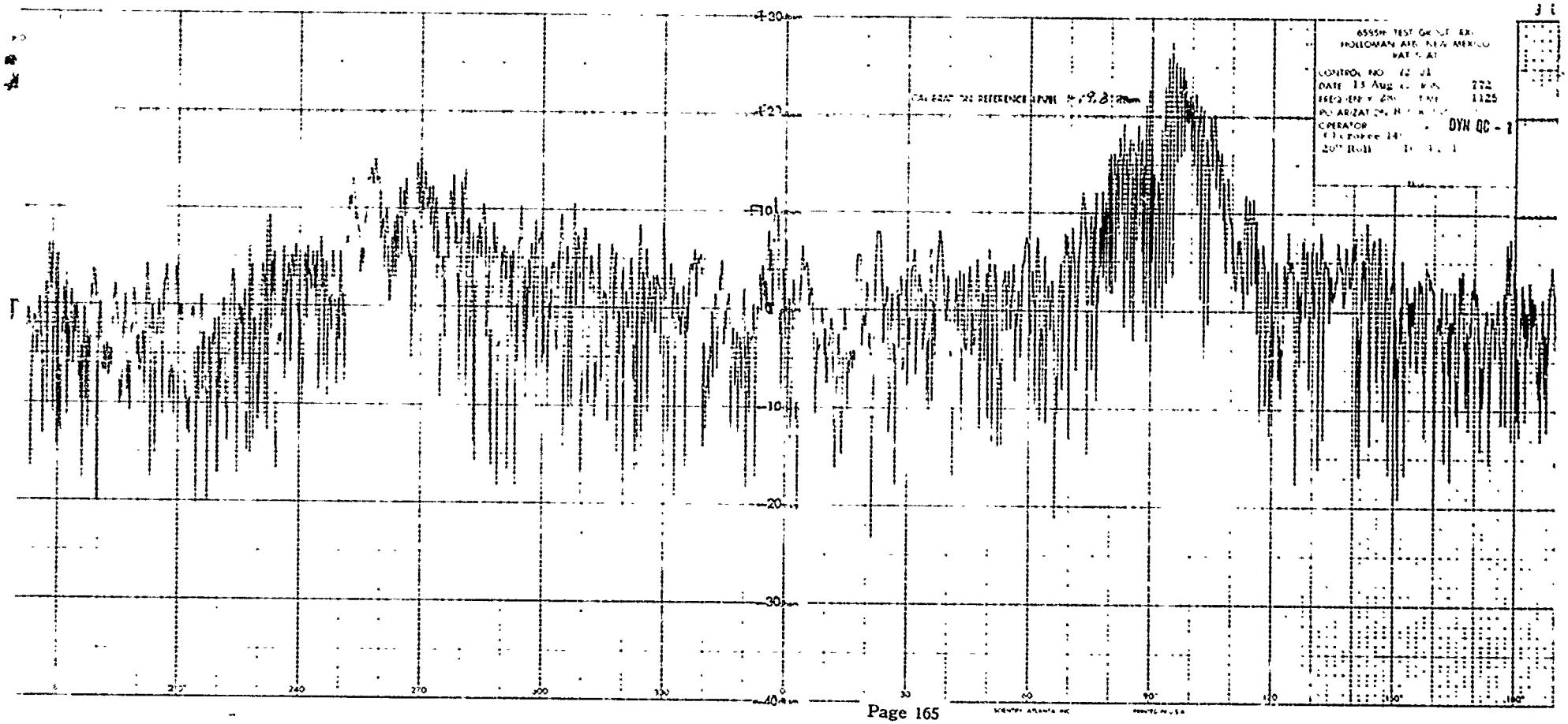

6585th TEST GROUP (RR)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 6 Aug 73 RUN 647
FREQUENCY 2800 TIME 1315
POLARIZATION RR BISTATIC 0°
OPERATOR JS
Cherokee 140
10° Roll, +10° Pitch
CALIBRATION REFERENCE LEVEL
+30
+20
+10
0
-10
-20
-30
-40
180°
210°
240
270°
300
330°
30°
60°
90°

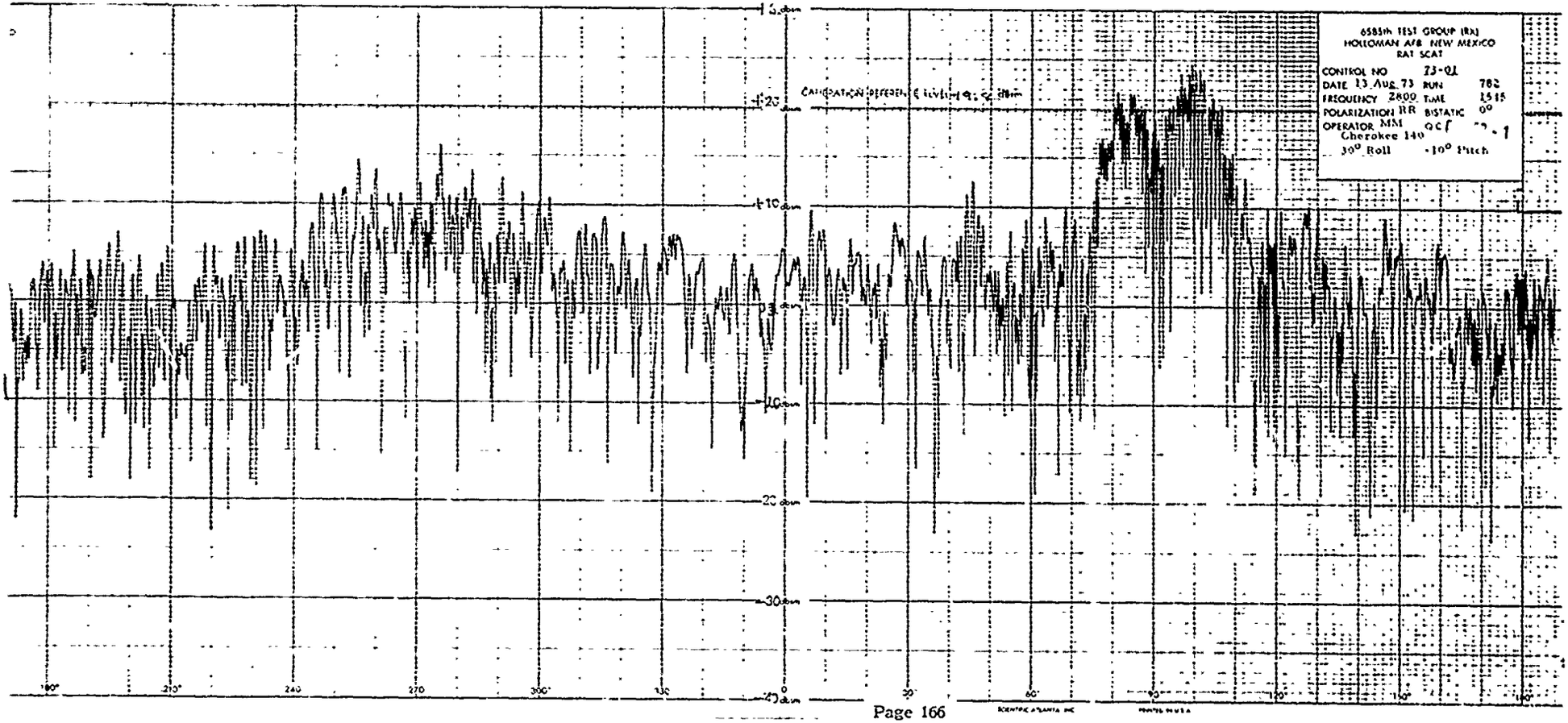

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 9 Aug 73 RUN 725
FREQUENCY 2800 TIME 0710
POLARIZATION HH STAT
OPERATORS QC DYH QC--1
+20 dbm
+10 dbm
0 dbm
-10 dbm
-20 dbm
-30 dbm
180°
210°
240
270°
300°
330
0
30
60°
90°
120°
150°
180°

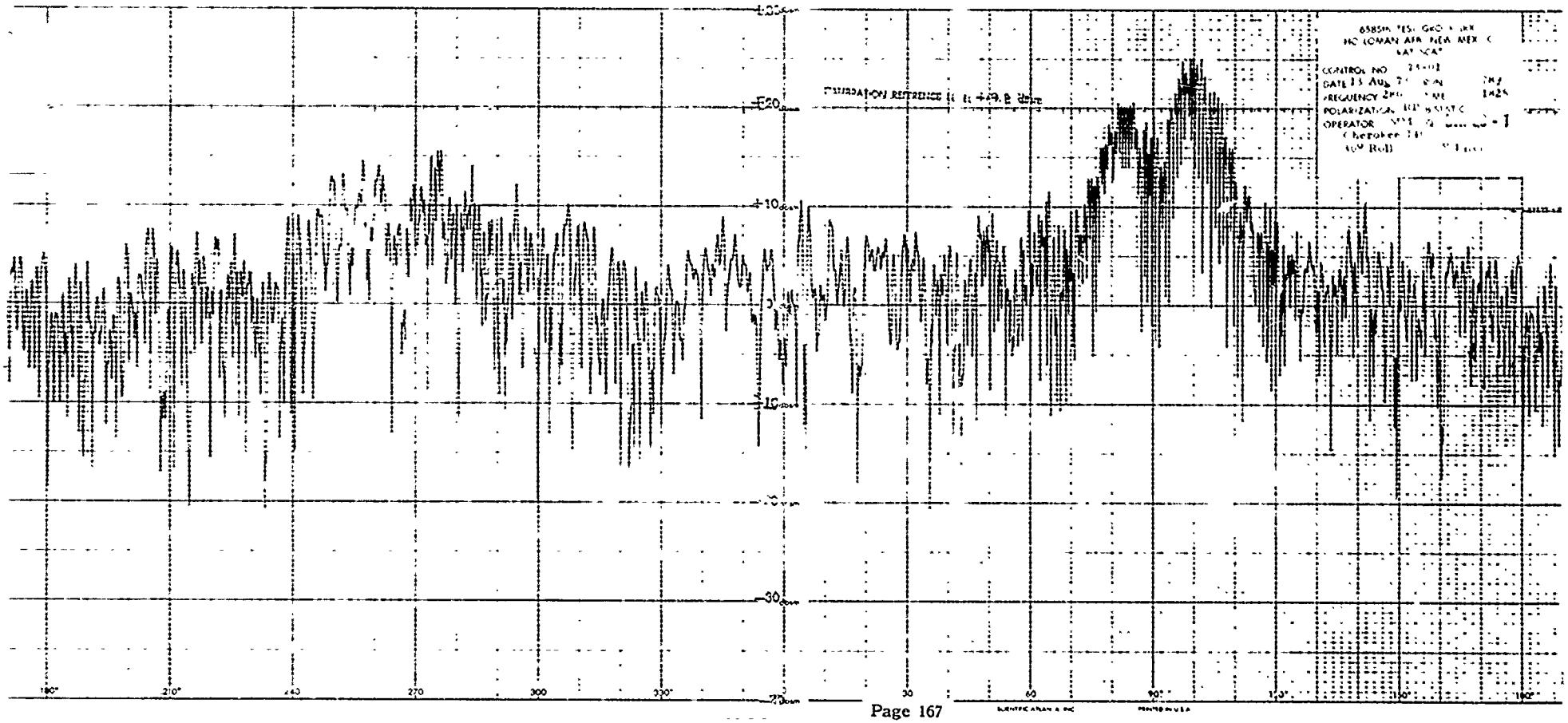

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 10 Aug 73 RUN 737
FREQUENCY 2800 TIME 0825
POLARIZATION RR
OPERATOR JS
Cherokee 140
Roll -1° Pitch
QC DYN QC-1
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

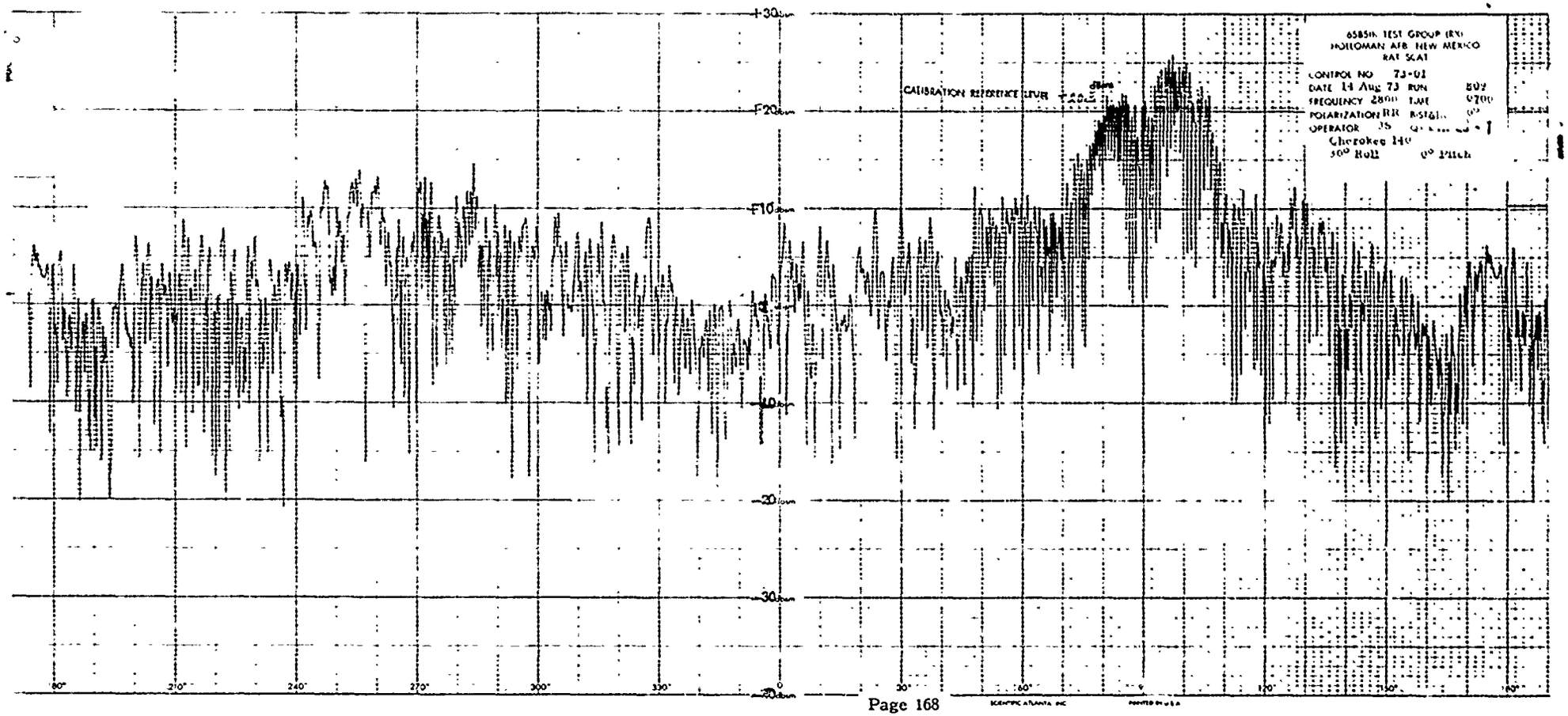

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 75R
FREQUENCY 2800 TIME 0720
POLARIZATION RR BISTATIC 0°
OPERATOR J. QC DYN QC -1
Cherokee 140
20° Roll 0° Pitch
+30
+20
+10
0
-10
-20
-30
-40

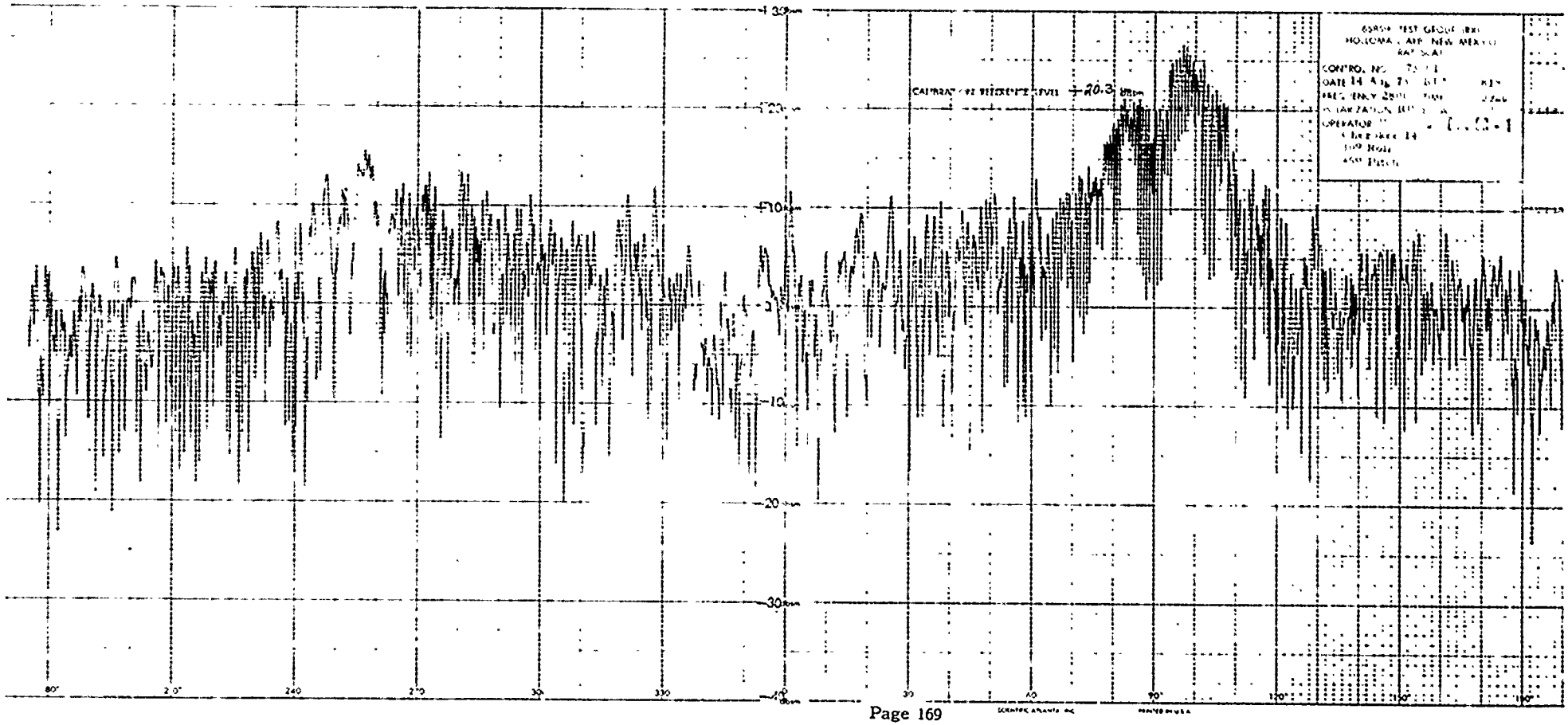

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 767
FREQUENCY 2800 TIME 0940
POLARIZATION RR STATIC 0°
OPERATOR JS Q-DYN QC-1
Cherokee 140
20° Roll +5° Pitch
CALIBRATION REFERENCE LEVEL +19.8 dBsm
+30dBsm
+20
+10
0
-10
-20
-30dBsm
180°
210°
240
270
300
330
0
30
60
90
120°
150°
180°

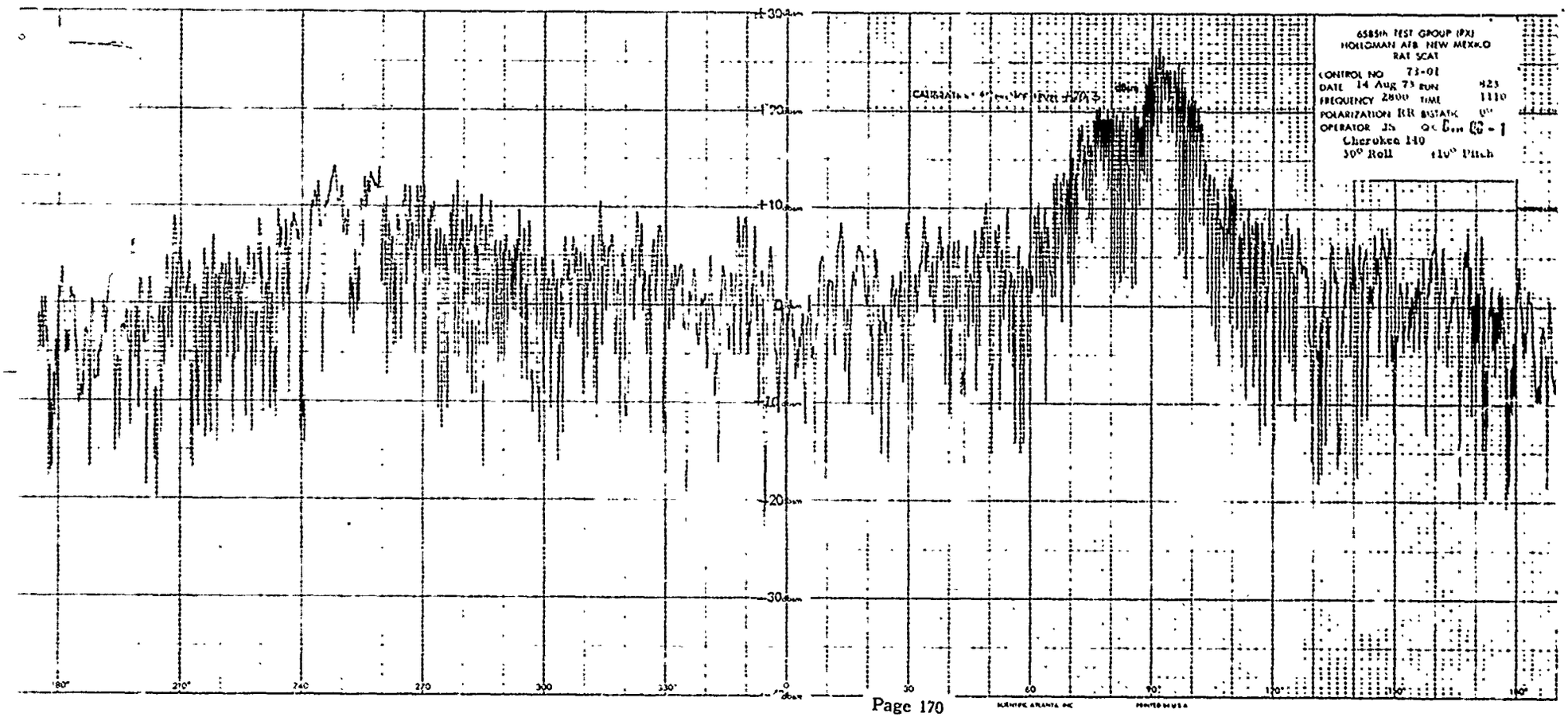

+30
+20
+10
0
-10
-20
-30
-40
DYN QC - 1

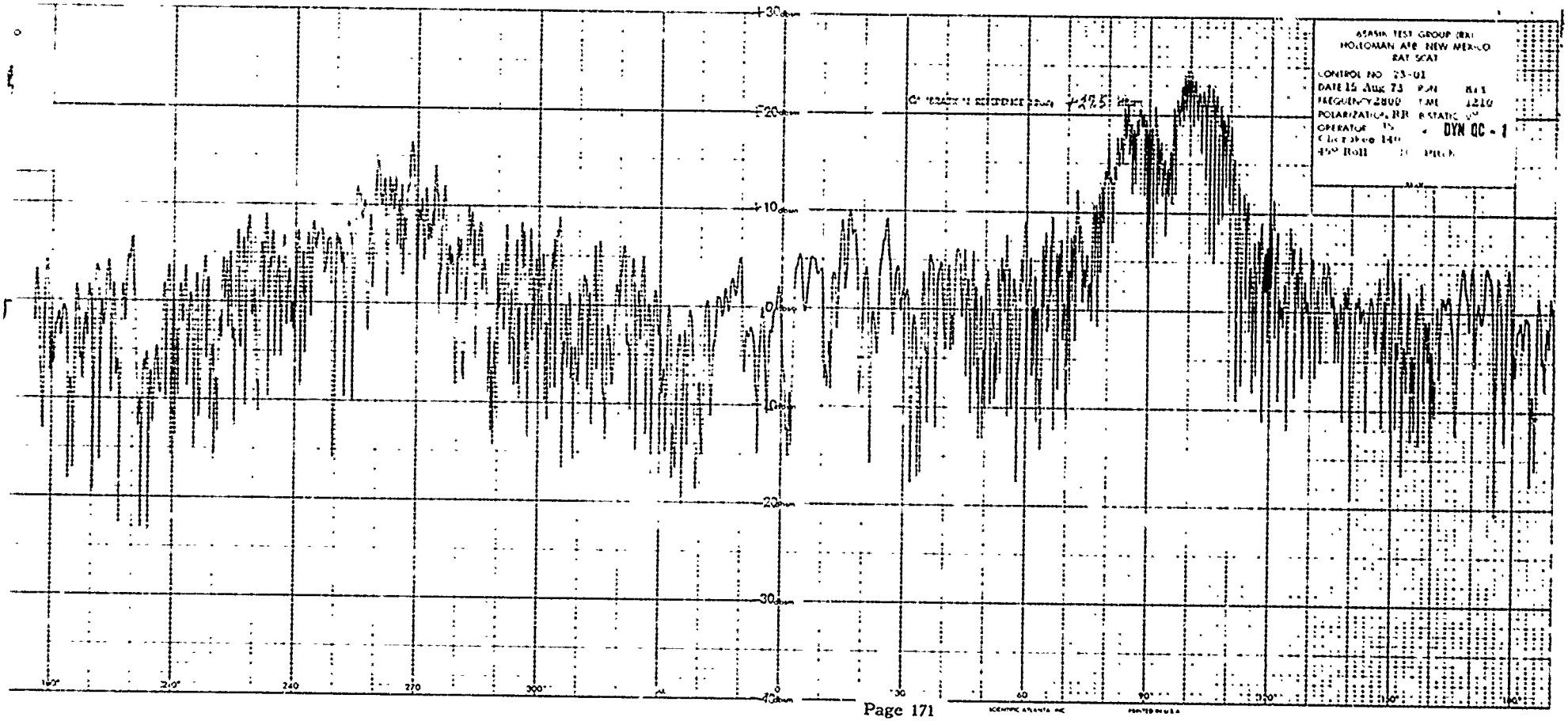

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-91
DATE 13 Aug 73 RUN 782
FREQUENCY 2800 TIME 1515
POLARIZATION RR BISTATIC 0°
OPERATOR MM QC f
Cherokee 140
30° Roll -10° Pitch
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
-40 dbsm
180°
210°
240
270
300°
330
0
30°
60°
90°
120°
150°
180°

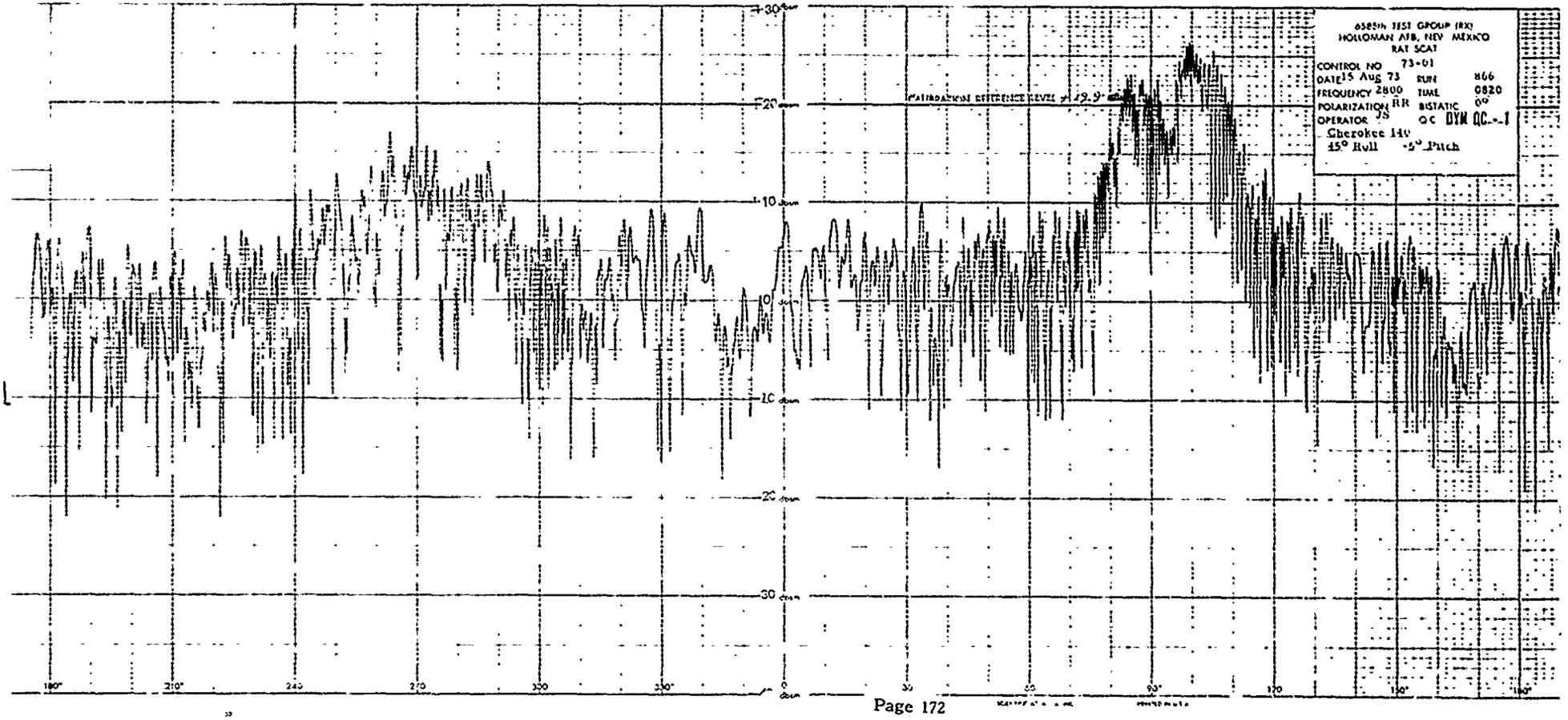

+20
+10
0
-10
-30
180°
210°
240
270
300
330°
30
60
90°
120°
150°
180°

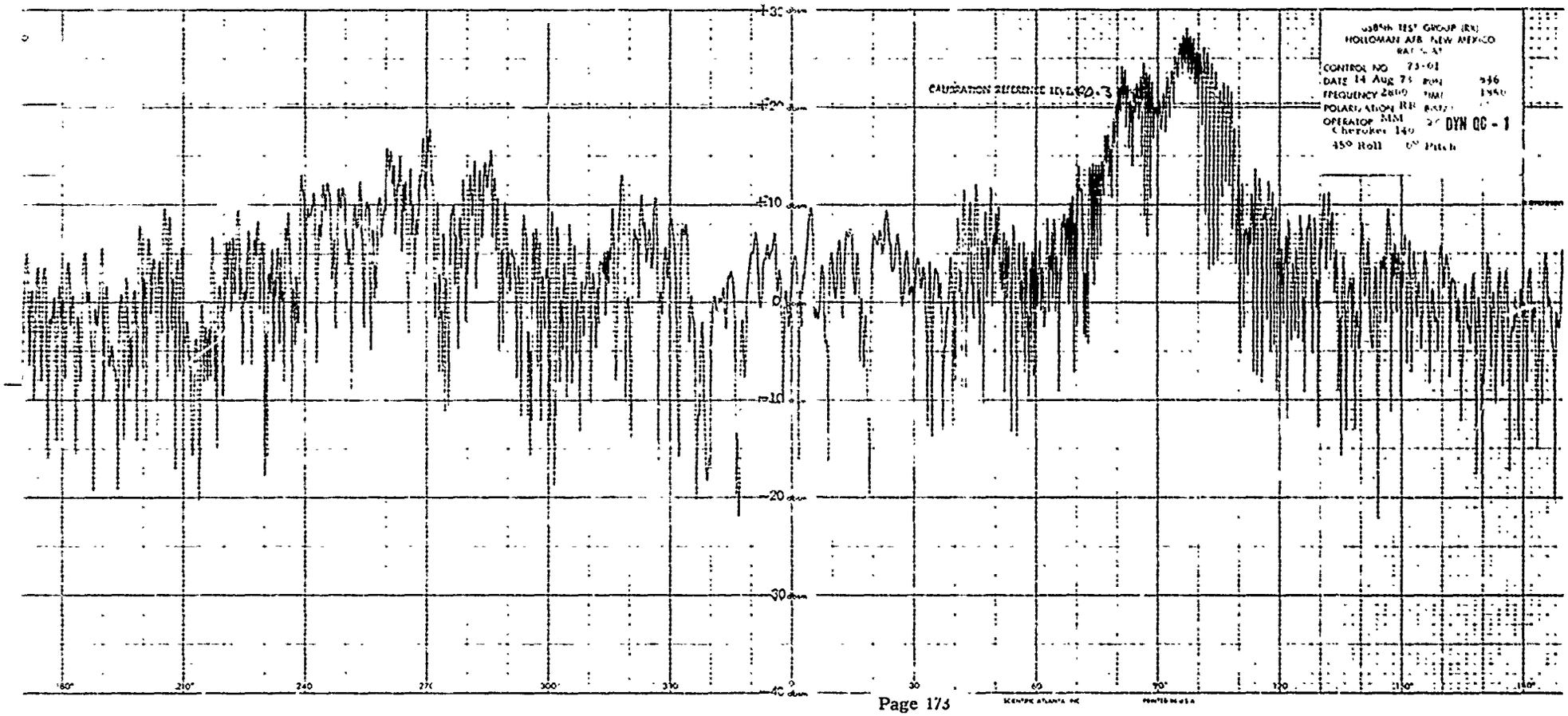

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 802
FREQUENCY 2800 TAPE 0700
POLARIZATION RR
OPERATOR JS
Cherokee 140
56° Roll 0° Pitch
CALIBRATION REFERENCE LEVEL
+30
+20
+10
0
-10
-20
-30
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

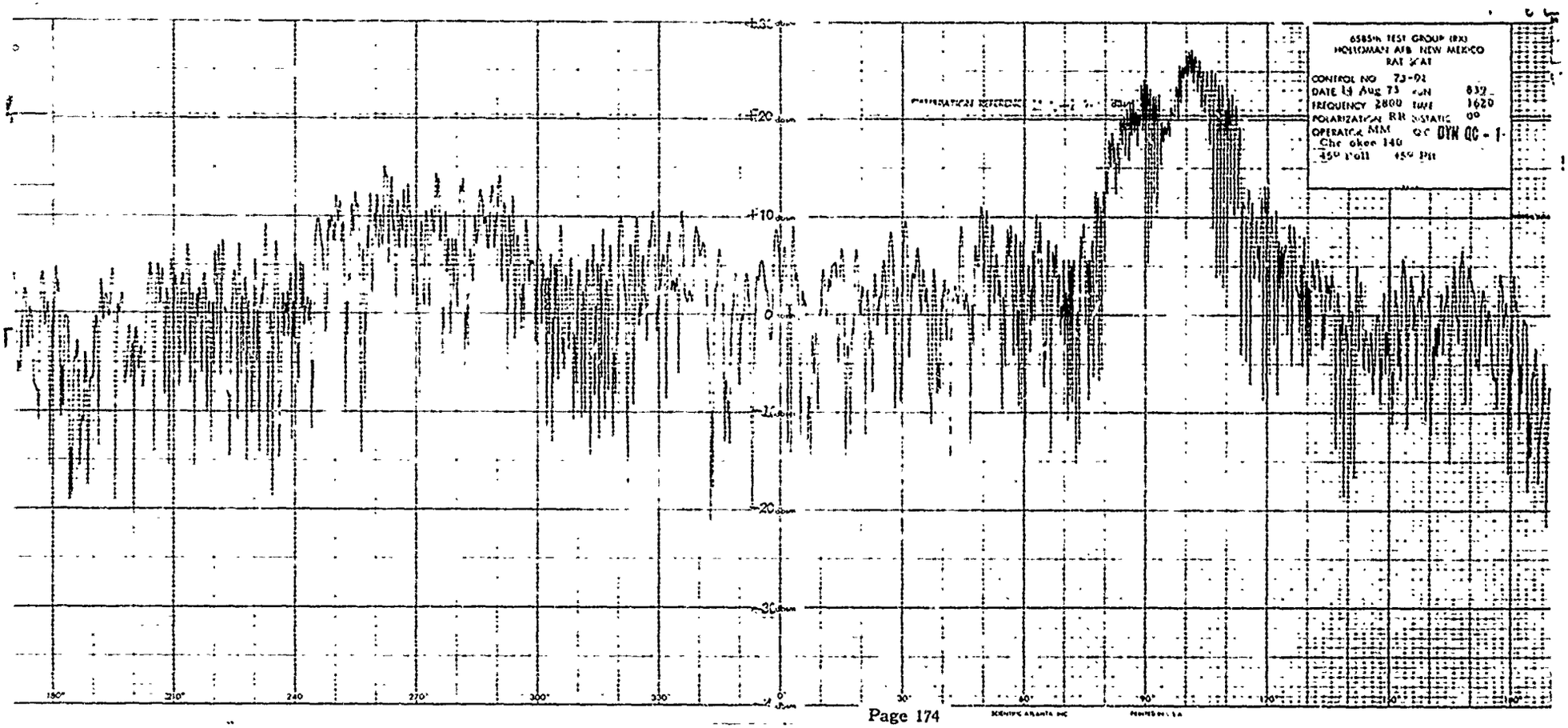

+30
+20
+10
0
-10
-20
-30
-40
CALIBRATE RECEIVER LEVEL +20.3
80°
210°
240
270
300
330
30
60
90°
120°
150°
180°

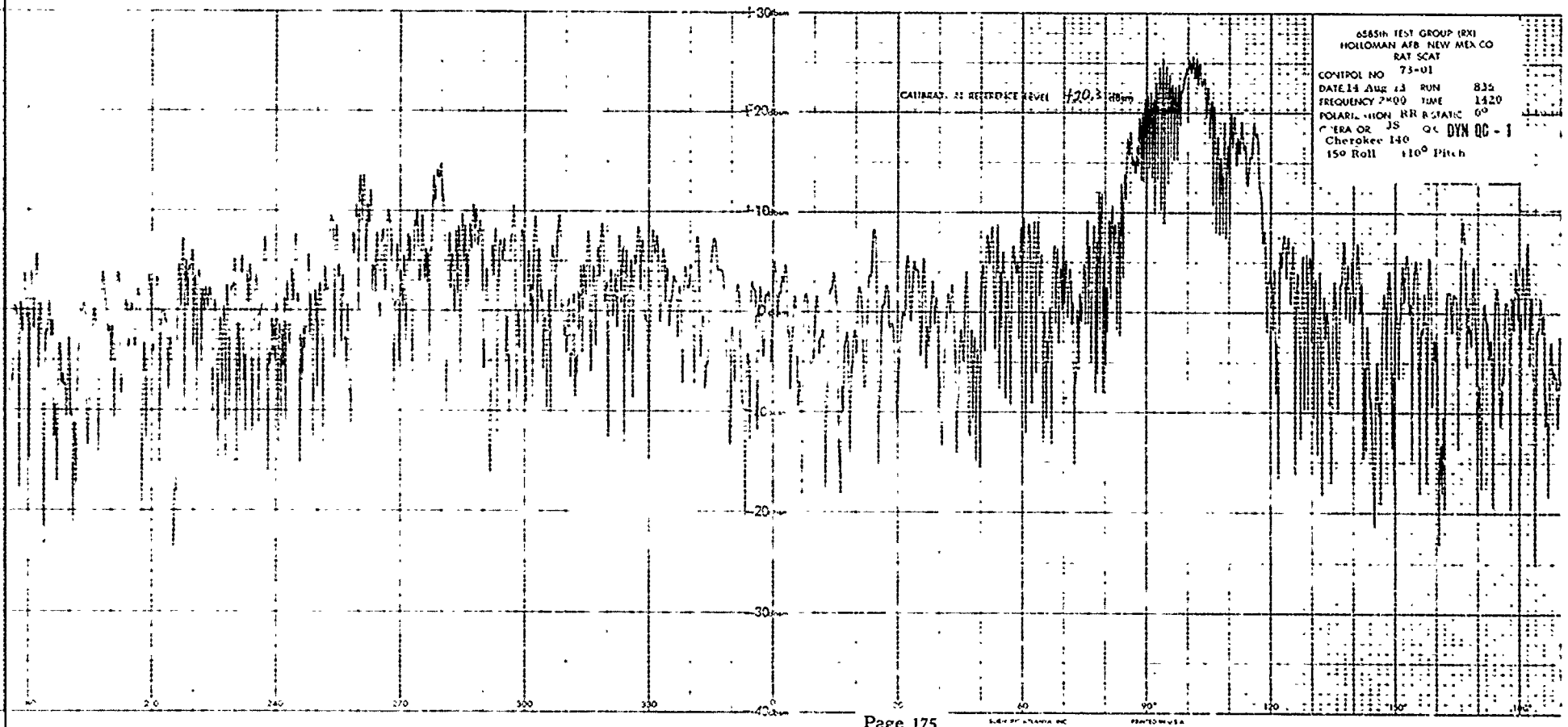

6585th TEST GROUP (PX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 823
FREQUENCY 2800 TIME 1110
POLARIZATION RR BISTATIC 0°
OPERATOR JS
Cherokee 140
30° Roll ±10° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270
300
330°
0
30
60
90°
120°
150°
180°

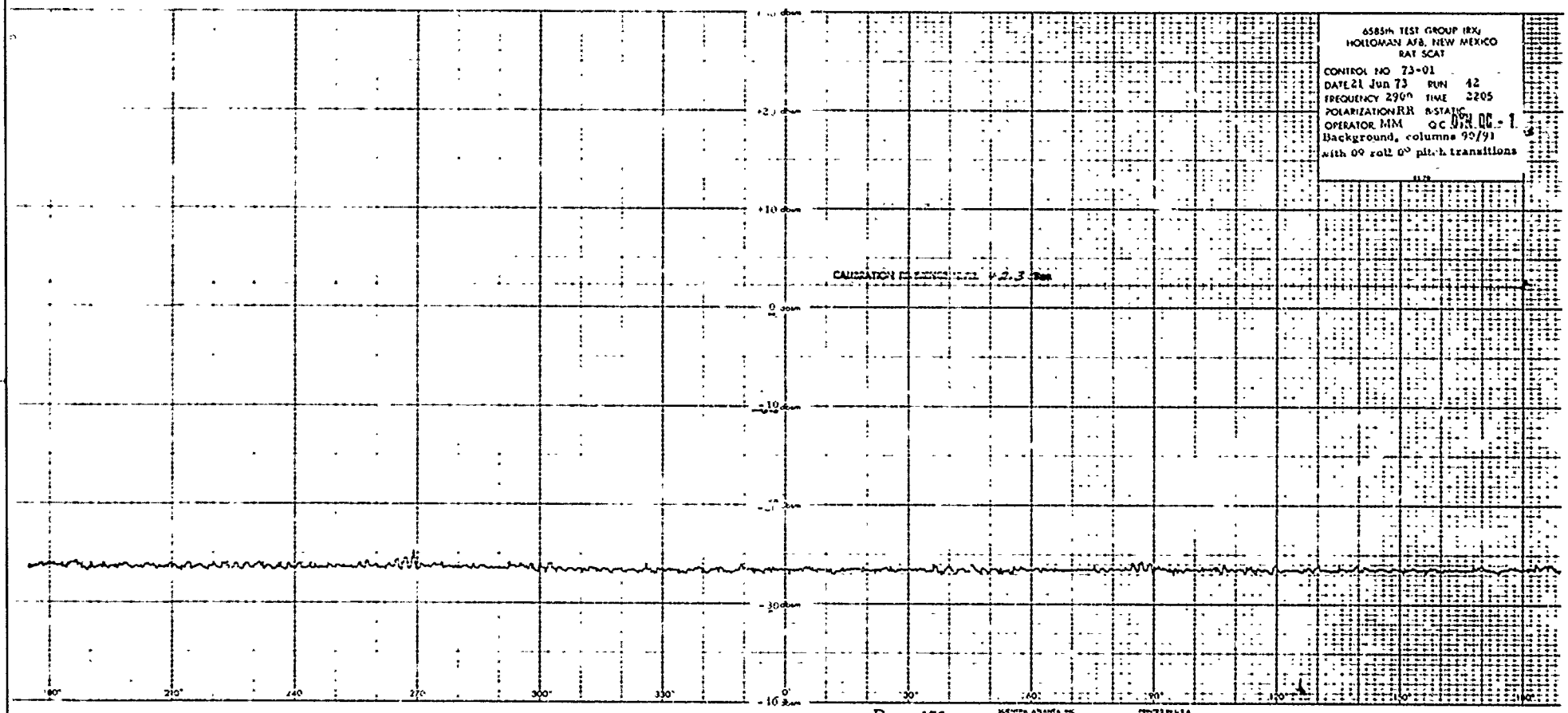

ASASM TEST GROUP (RA)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73
FREQUENCY 2800
POLARIZATION RR
OPERATOR
DYN QC - 1
+30
+20
+10
0
-10
-20
-30
-40
180°
210°
240
270
300°
0
30
60
90°
120°
150°

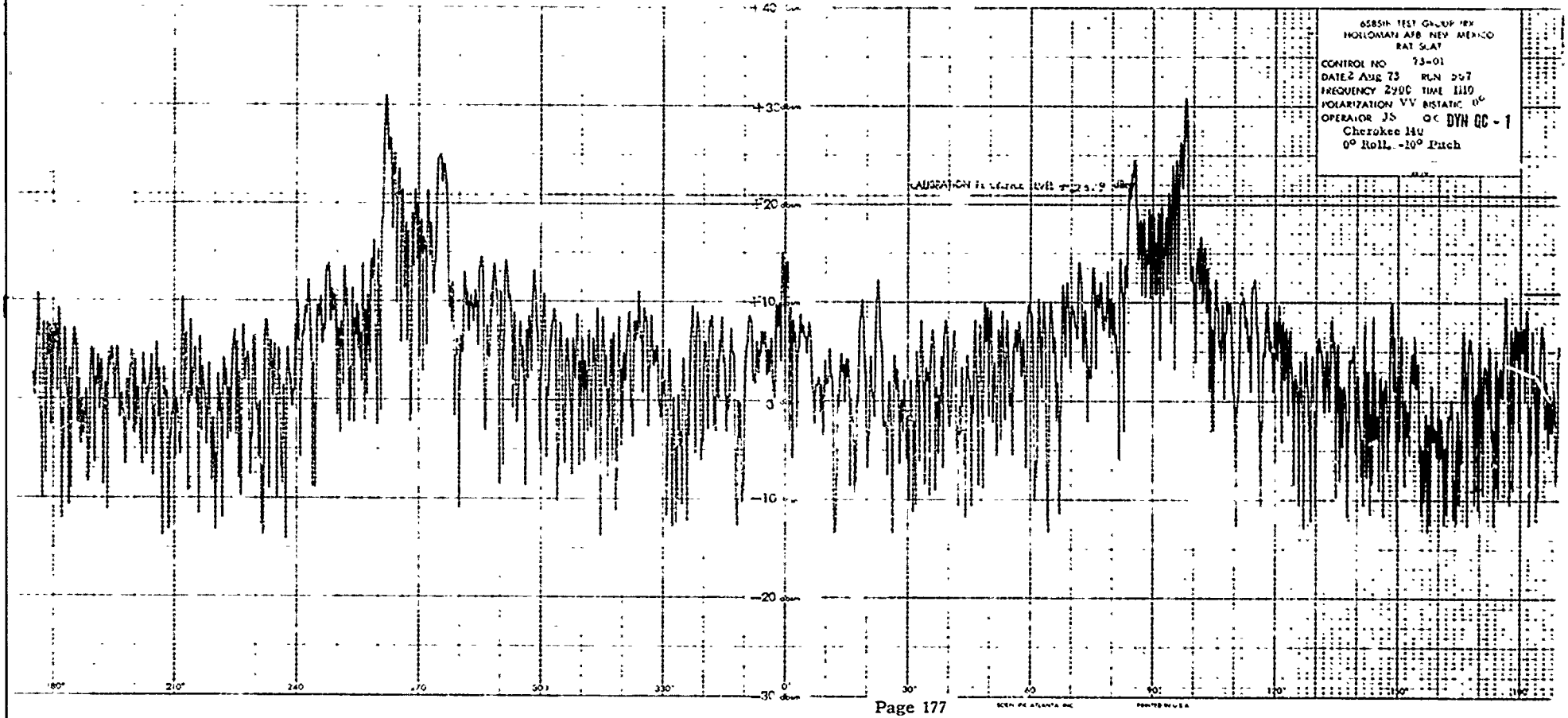

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 866
FREQUENCY 2800 TIME 0820
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
45° Roll -5° Pitch
CALIBRATION REFERENCE LEVEL = 49.9
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240
270
300
330°
0 dbsm
30
60
90°
120
150°
180°

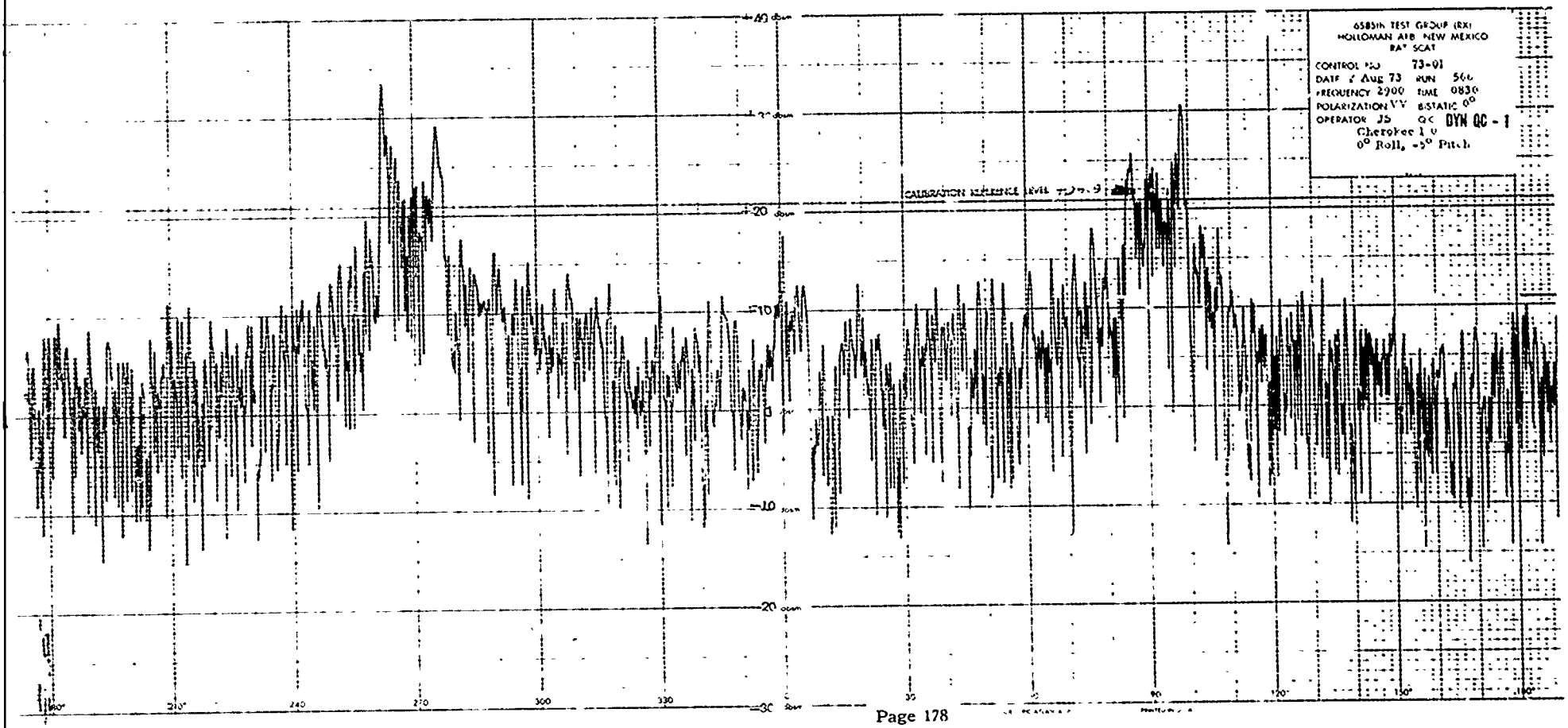

CALIBRATION REFERENCE LEVEL 20.3
CONTROL NO 73-01
DATE 14 Aug 73
FREQUENCY 2810
POLARIZATION RR
OPERATOR MM
Cherokee 140
45° Roll 0° Pitch
DYN QC - 1
+30
+20
+10
0
-10
-20
-30
-40
60°
210°
240
270
300°
330
30
60
70°
120
150°
180

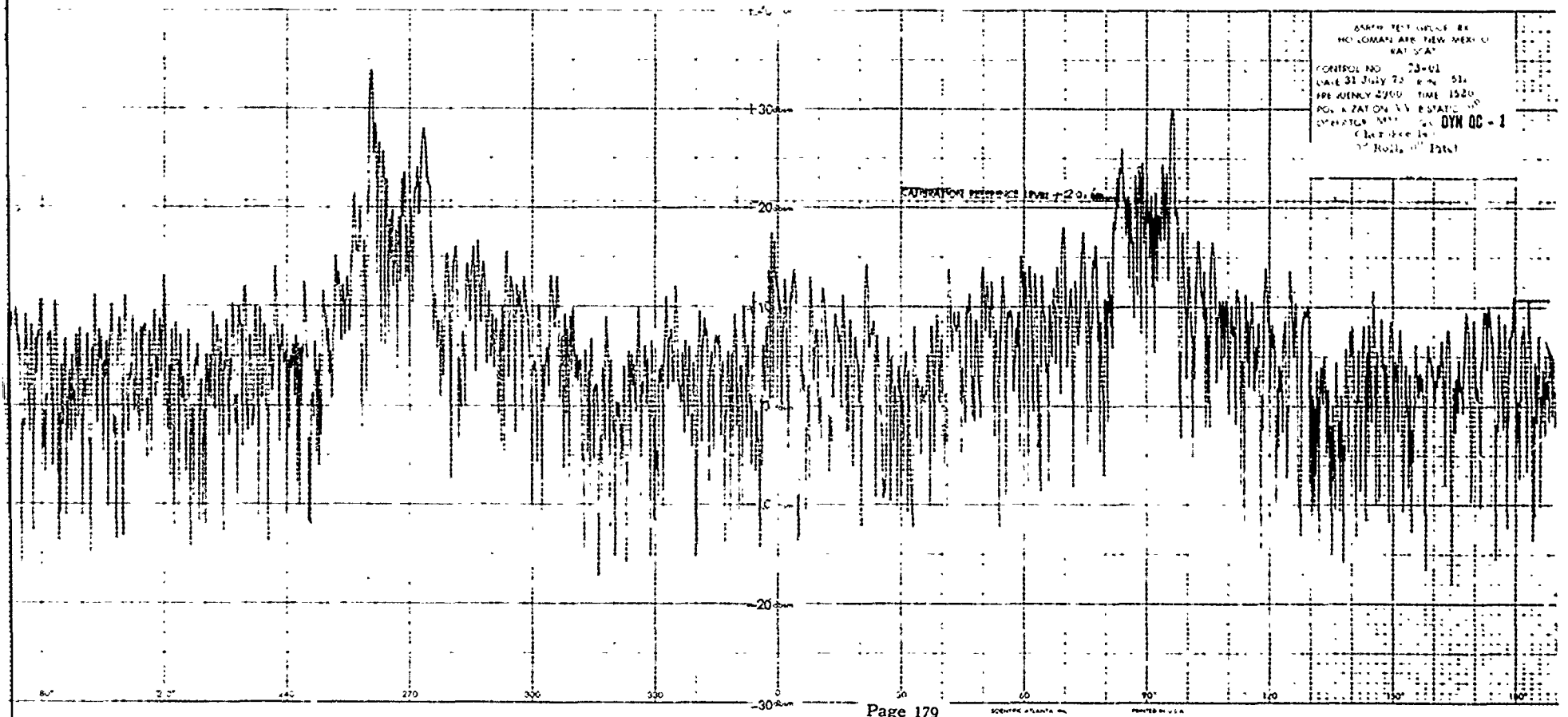

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-91
DATE 13 Aug 73 GMT 832
FREQUENCY 2800 TIME 1620
POLARIZATION RR ASTATIC 00
OPERATOR MM QC DYN QC - 1
Che okee 140
45° Roll 45° Pit
+30 dbm
+20 dbm
+10 dbm
0 dbm
-10 dbm
-20 dbm
-30 dbm
180°
210°
240
270°
300°
330°
0°
30°
60°
90°
120°
150°

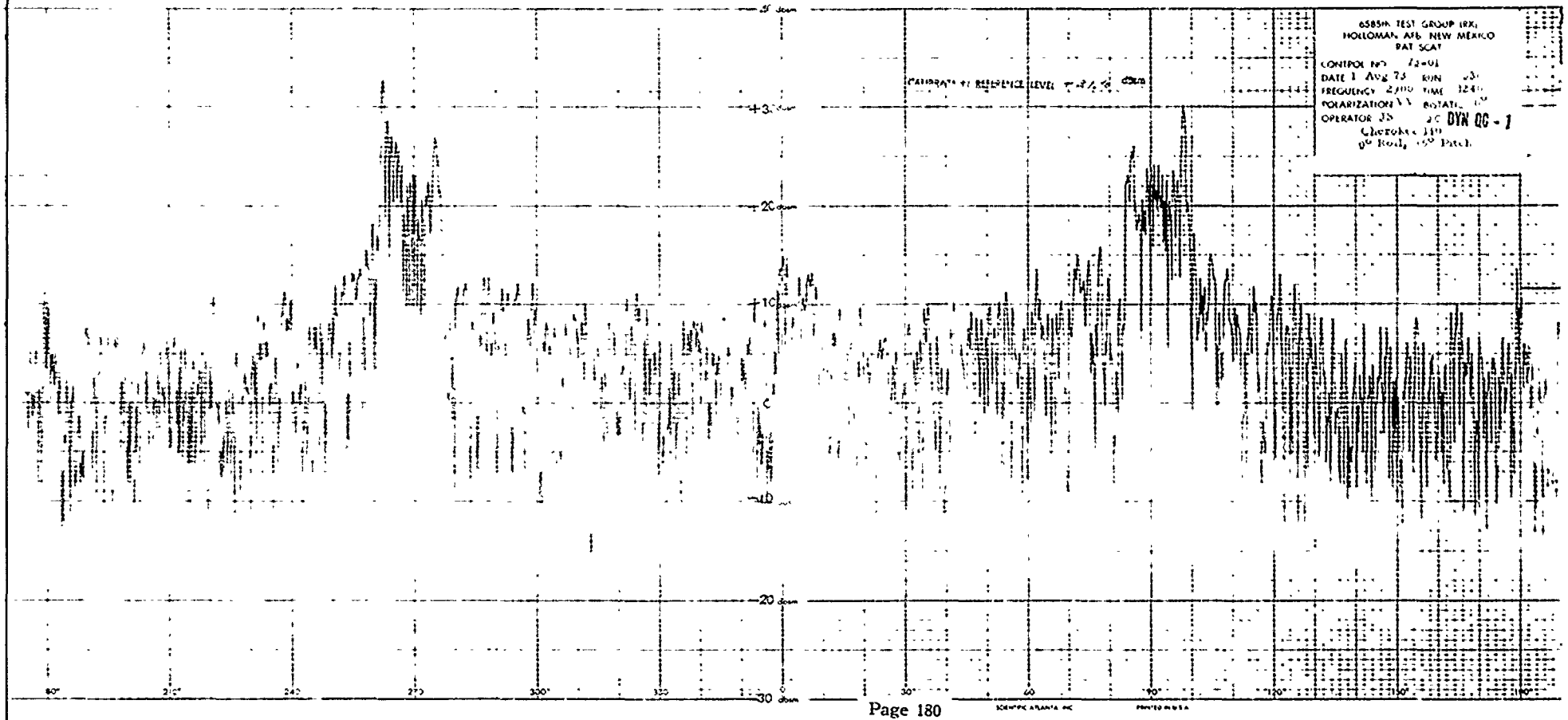

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEX CO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 835
FREQUENCY 2900 TIME 1420
POLARIZATION RR ROTATE 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
150 Roll ±10° Pitch
CALIBRATED REFERENCE LEVEL +20.3 dBsm
+30dBsm
+20dBsm
+10dBsm
0dBsm
-10dBsm
-20dBsm
-30dBsm
-40dBsm
210
240
270
300
330
0°
30
60
90°
120
150°
180°

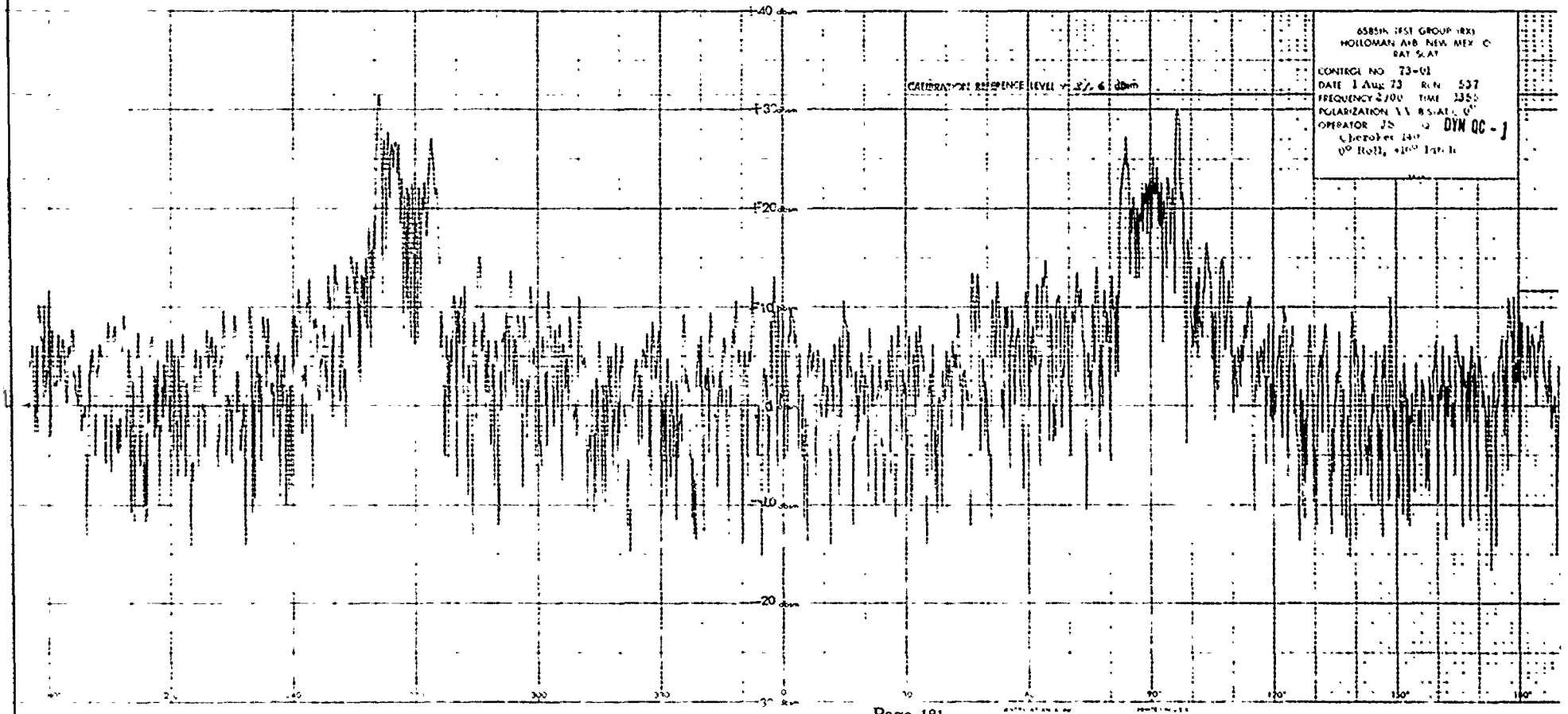

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 21 Jun 73 RUN 42
FREQUENCY 290⁰ TIME 2205
POLARIZATION RR BISTATIC
OPERATOR MM QC
Background, columns 99/91
with 09 roll 0⁰ pitch transitions
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°

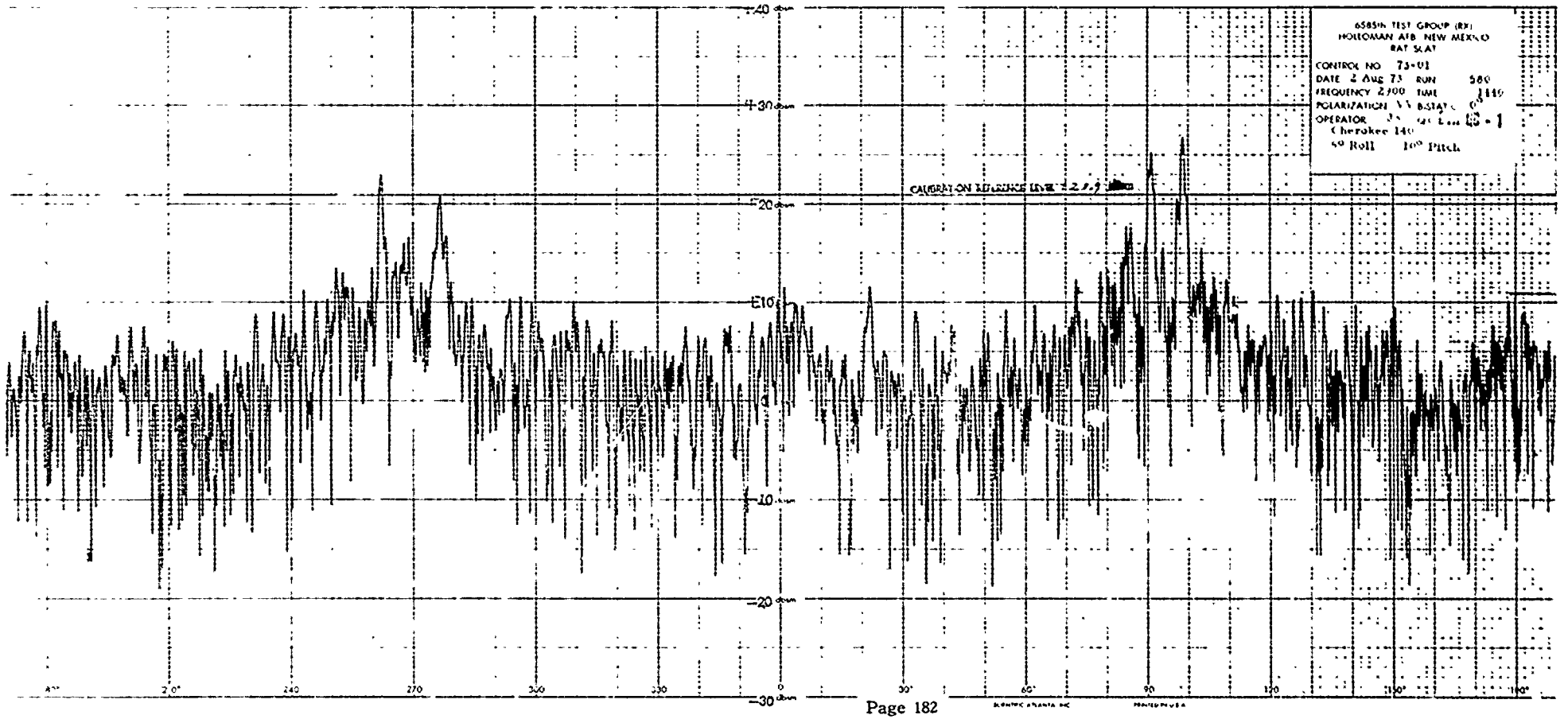

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SLAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 047
FREQUENCY 2900 TIME 1110
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
0° Roll, -10° Pitch
+40
+30
+20
+10
0
-10
-20
-30
210°
240
270
300
330°
0°
30°
60
90°
120°
150°
180°

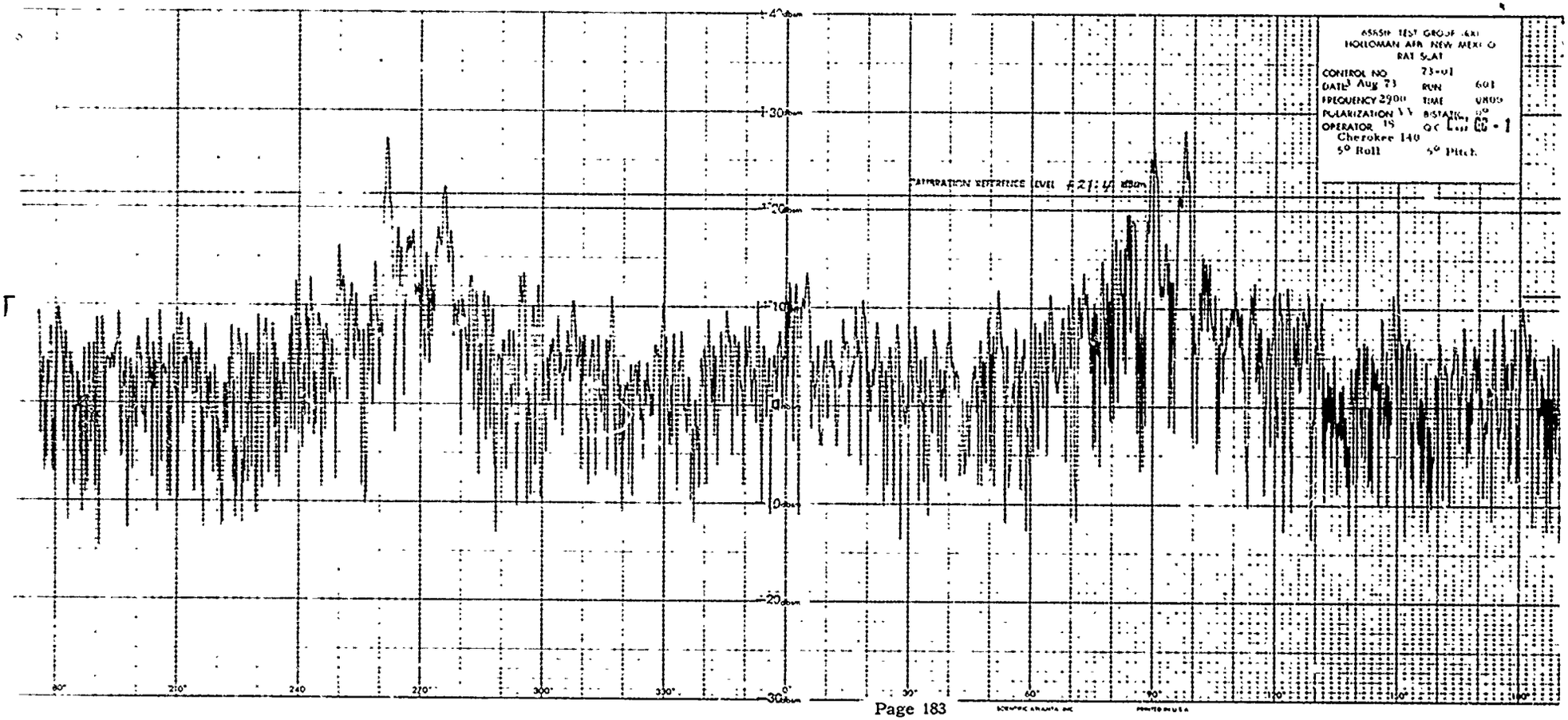

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 566
FREQUENCY 2900 TIME 0830
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 1 0
0° Roll, -5° Pitch
CALIBRATION REFERENCE LEVEL
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
210°
240
270
300
330
30
60
90
120°
150°
180°

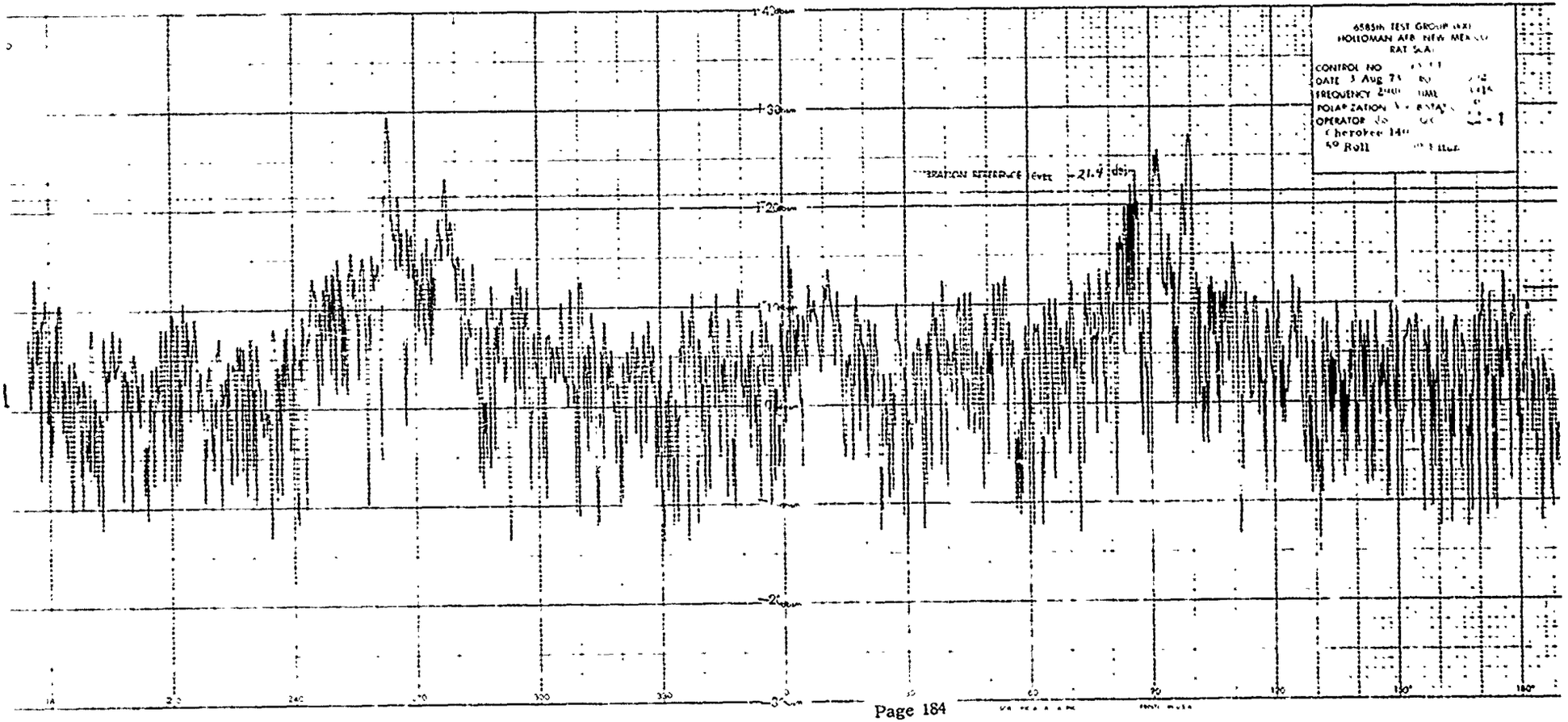

CONTROL NO 73-01
DATE 31 July 73
FREQUENCY 5700 TIME 1520
OPERATOR
DYN QC - 1
+30
+20
+10
-20
-30
80°
270
300
330
0
30
60
90°
120
150°
180°

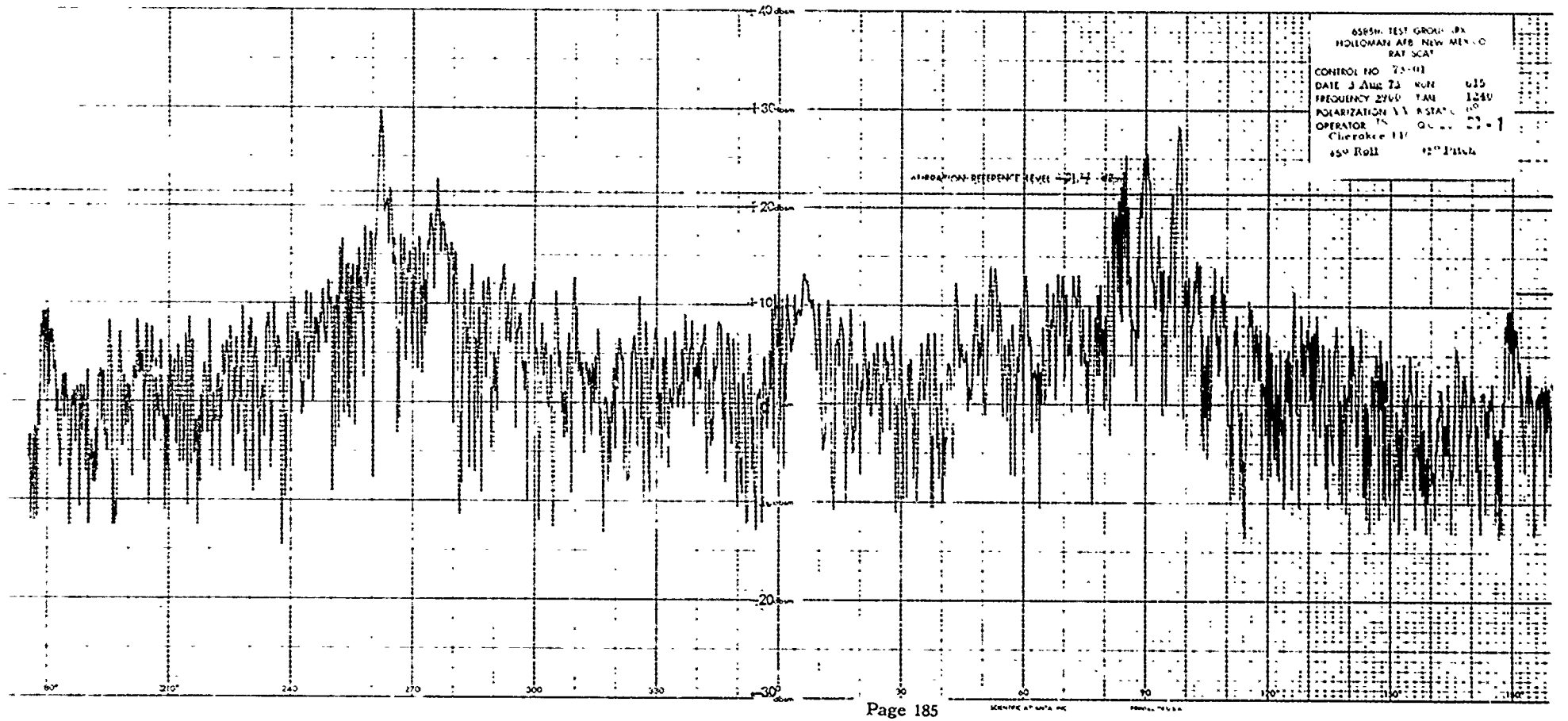

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
PAT SCAT
DYN QC - 1
Chevelle 11°
9° Rad, 15° Pitch
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
30°
60
90°
120°
150°
180°

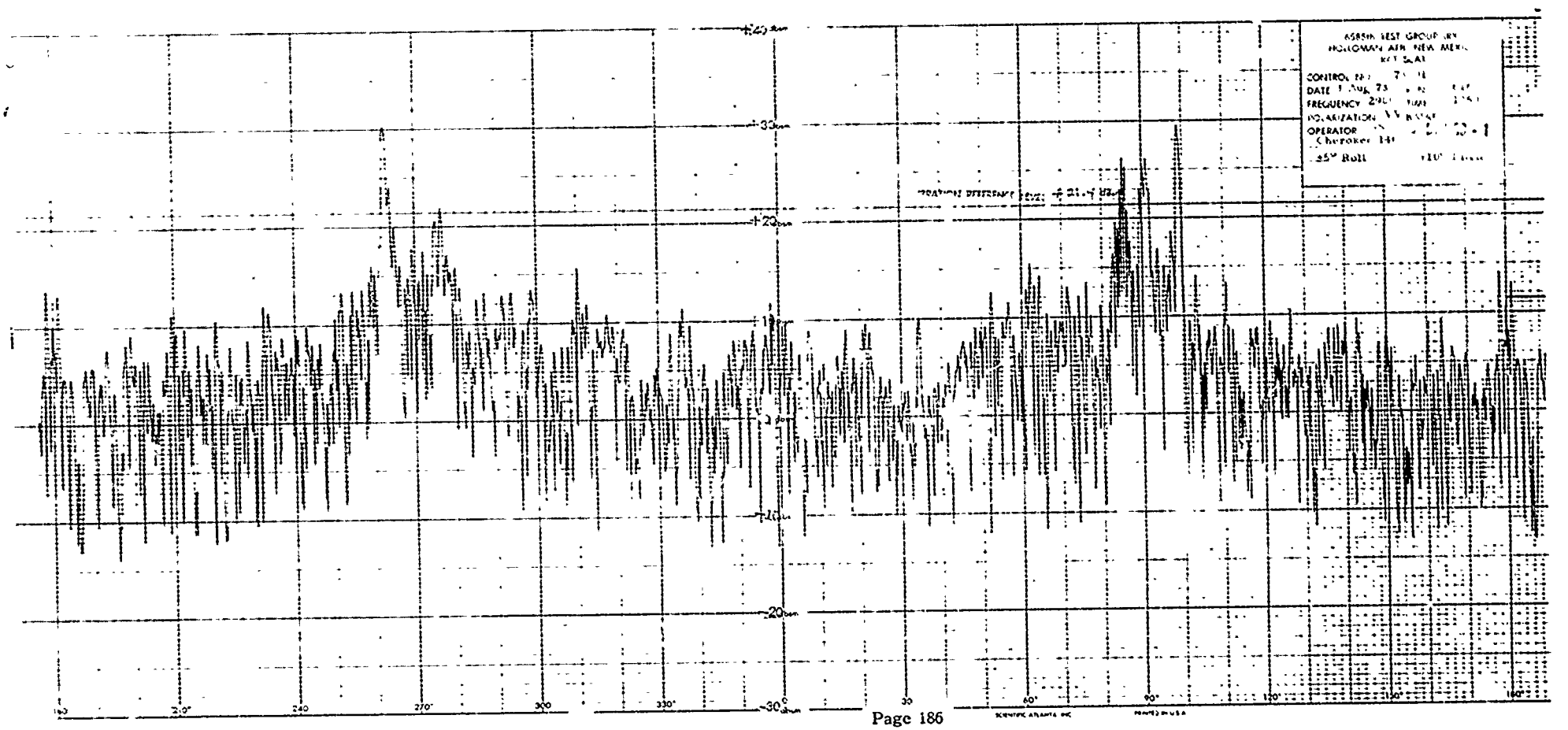

+40 dBm
+30
+20
+10
0
-10
-20
CONTROL NO 73-01
DATE 1 Aug 73
FREQUENCY 2700
POLARIZATION V V
OPERATOR JS
DYN QC - 1

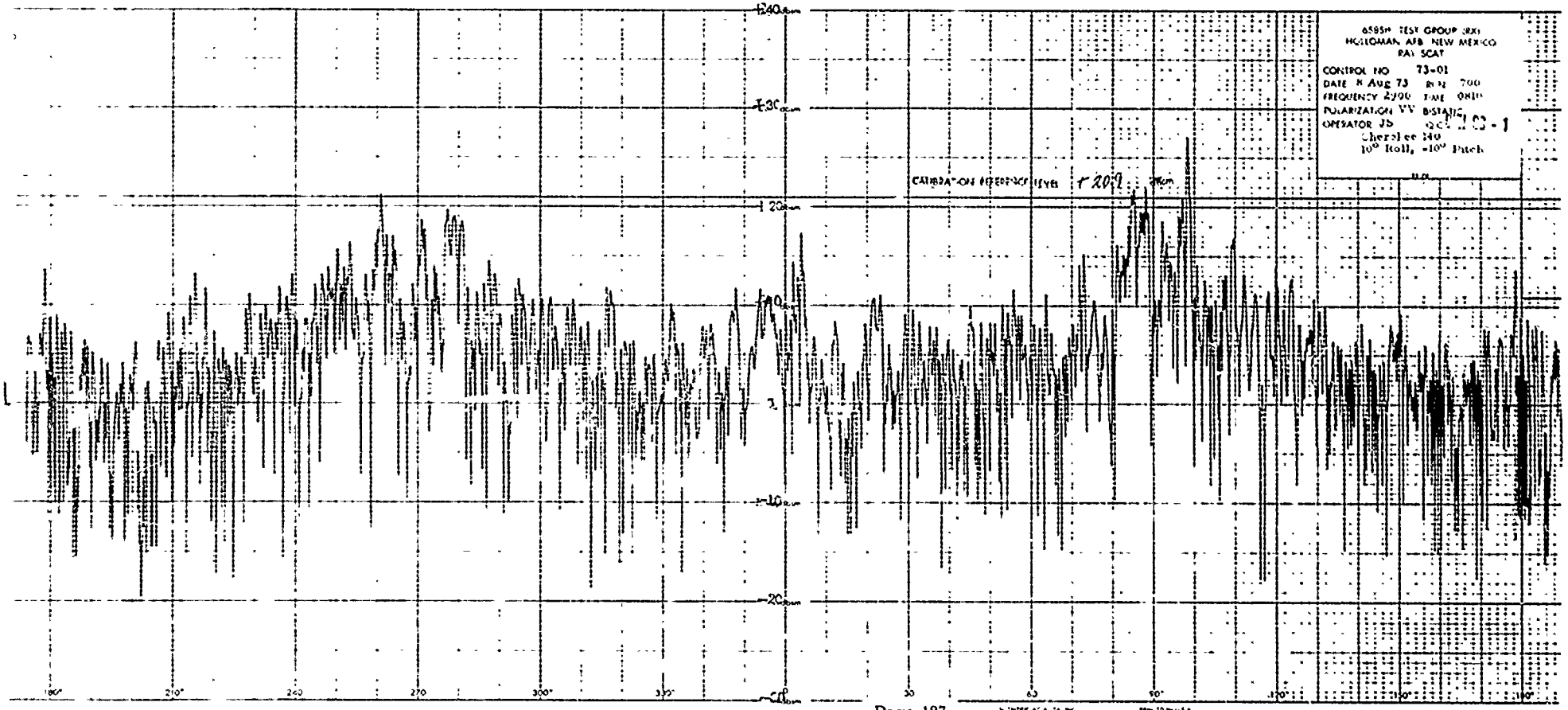

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 580
FREQUENCY 2.700 TIME 1119
POLARIZATION V V
OPERATOR
Cherokee 140
69 Roll 16° Pitch
CALIBRATION REFERENCE LEVEL
+40
+30
+20
+10
0
-10
-20
-30
210°
240
270
300
330
0
30°
60°
90
120
150°
180°

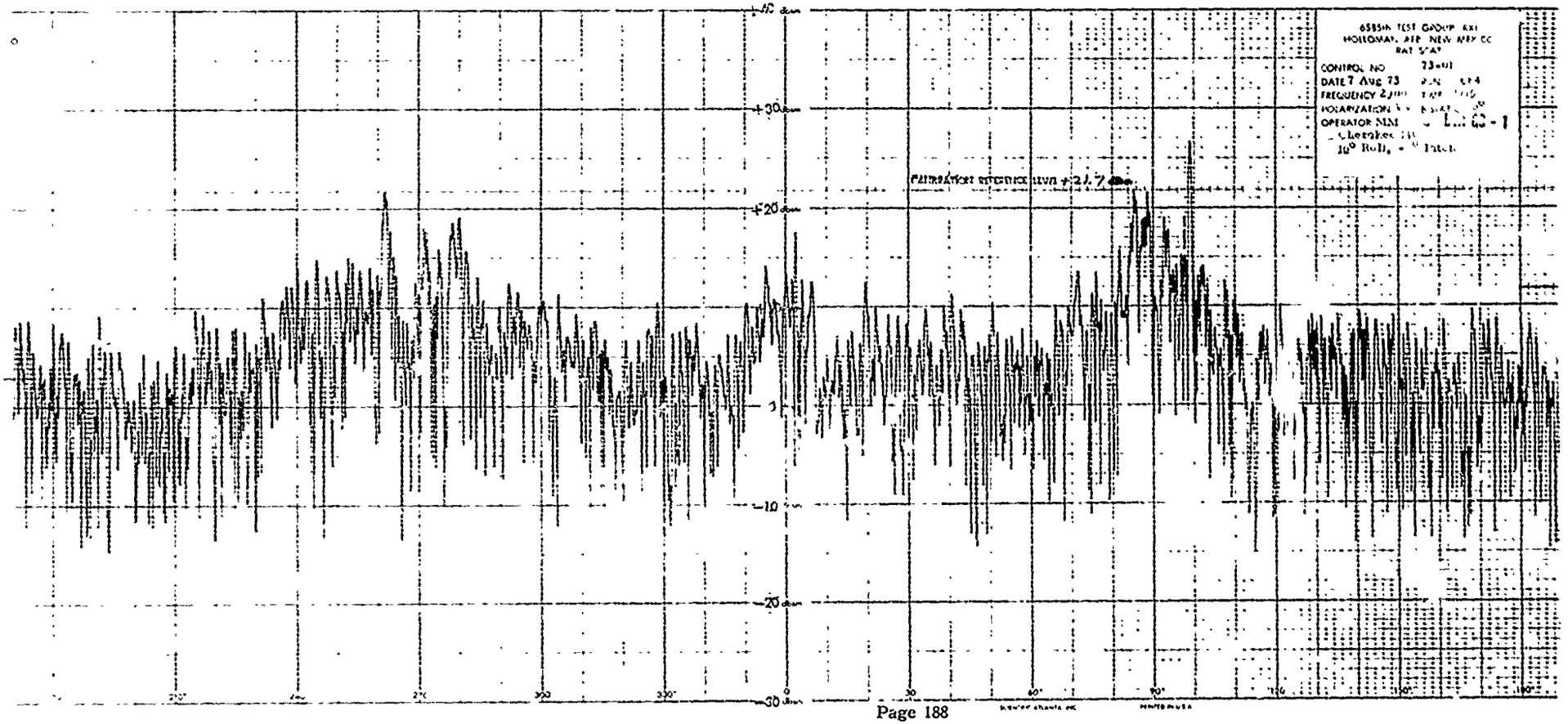

6555th TEST GROUP (AFSC)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-601
DATE 3 Aug 73
RUN 601
FREQUENCY 2900
TIME 0809
POLARIZATION V V
BISTATIC
OPERATOR
Cherokee 140
5° Roll
5° Pitch
CALIBRATION REFERENCE LEVEL
+40
+30
+20
+10
0
-10
-20
-30
210°
240
270°
300°
330°
0°
30°
60°

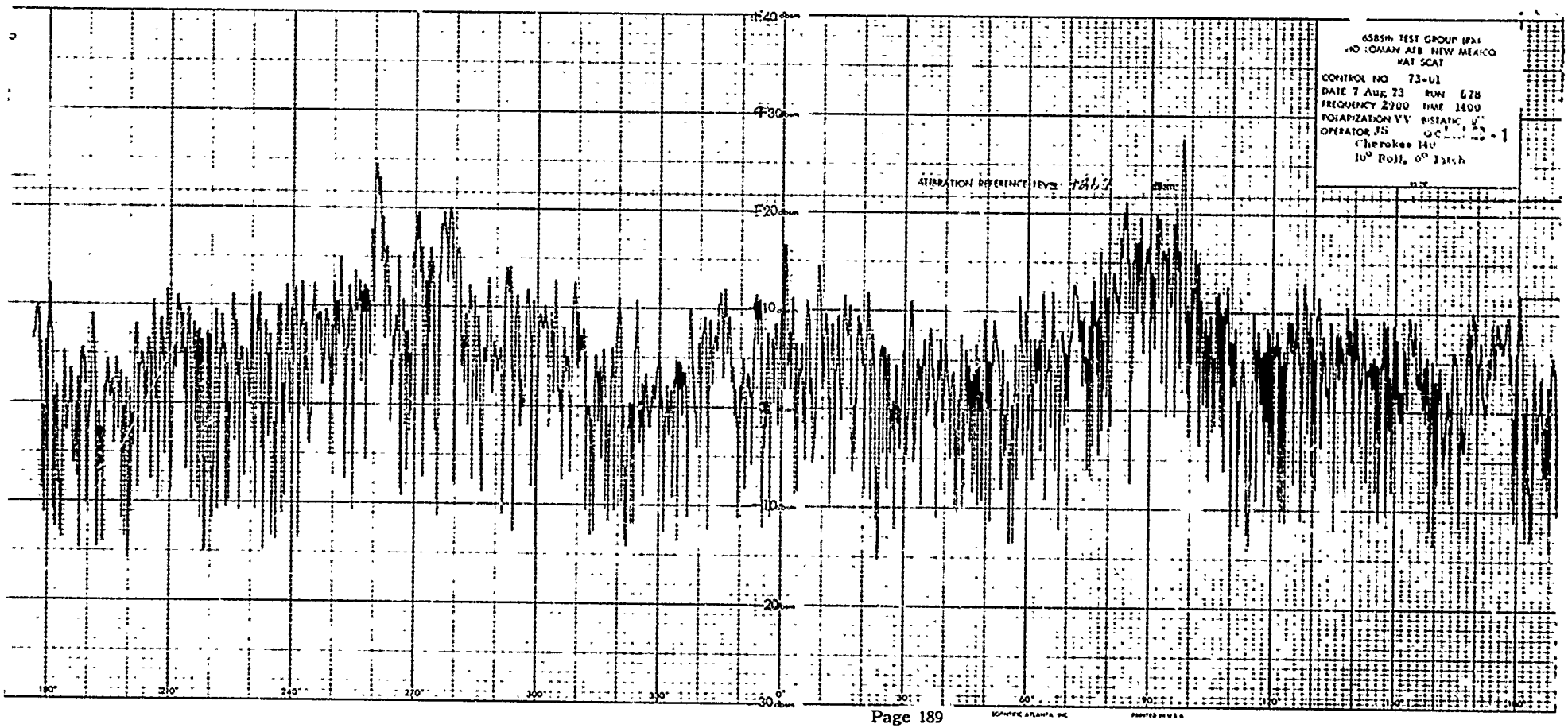

6585th TEST GROUP (AFSC)
HOLLOMAN AFB, NEW MEXICO
RAT 5A-1
CONTROL NO
DATE 3 Aug 71
FREQUENCY
TIME
POLARIZATION
OPERATOR
Cherokee 140
5° Roll
+40dbsm
+30dbsm
+20dbsm
+10dbsm
0dbsm
-10dbsm
-20dbsm
-30dbsm
0
30
60
90
120
150°
180°

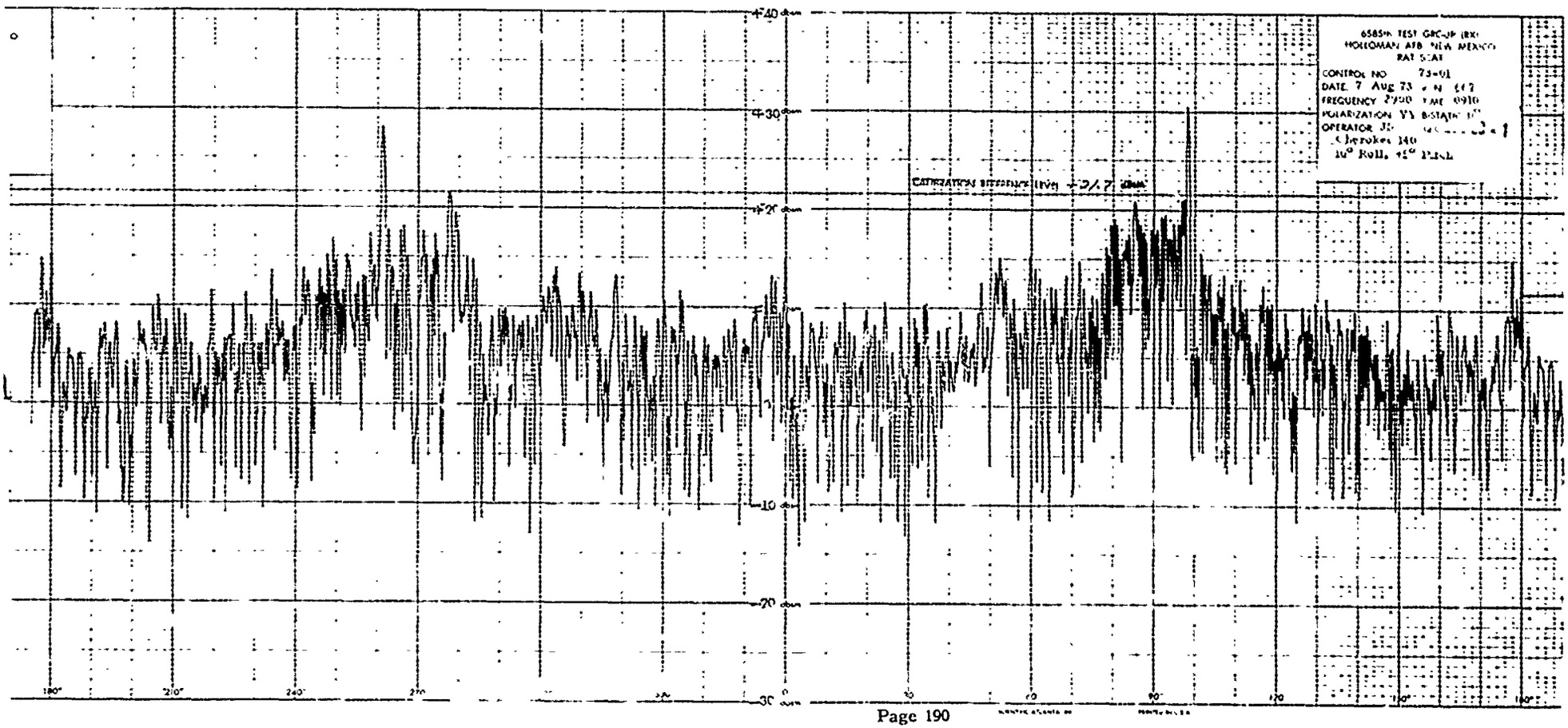

6585th TEST GROUP (PA
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73
FREQUENCY 2760
POLARIZATION V V
OPERATOR
Cherokee
45° Roll
+40 dbm
+30 dbm
+20 dbm
+10 dbm
-20 dbm
-30 dbm
60°
210°
240
270
300
330
30
60
90
120
150

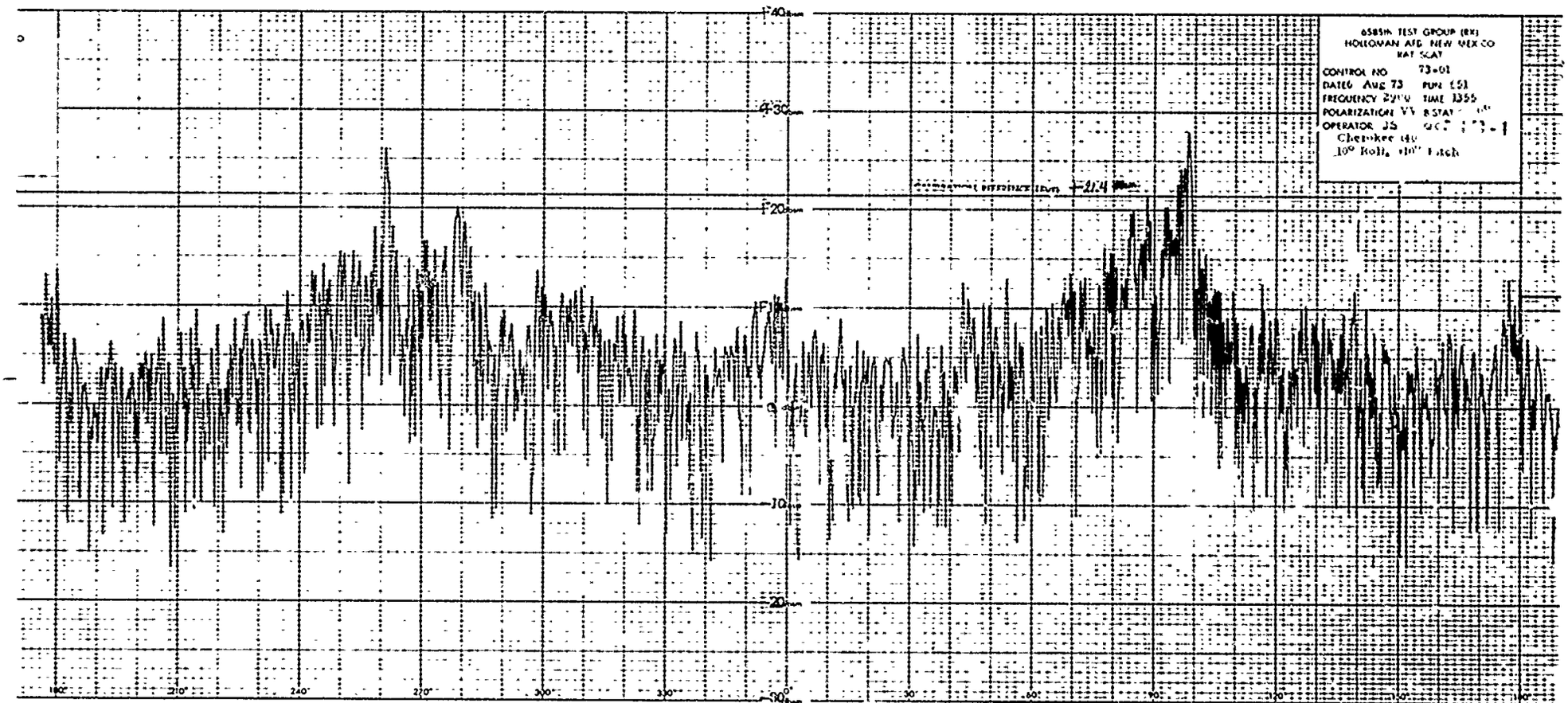

6585th TEST GROUP (RY)
HOLLOMAN AFB, NEW MEXICO
RCT SCAT
CONTROL NO.
DATE
FREQUENCY
POLARIZATION
OPERATOR
Cherokee 141
.55° Roll
+40 dBsm
+30
+20
+10
0
-10
-20
-30 dBsm
30
60°
90°
120°
150°
180°
210°
240
270°
300
330°

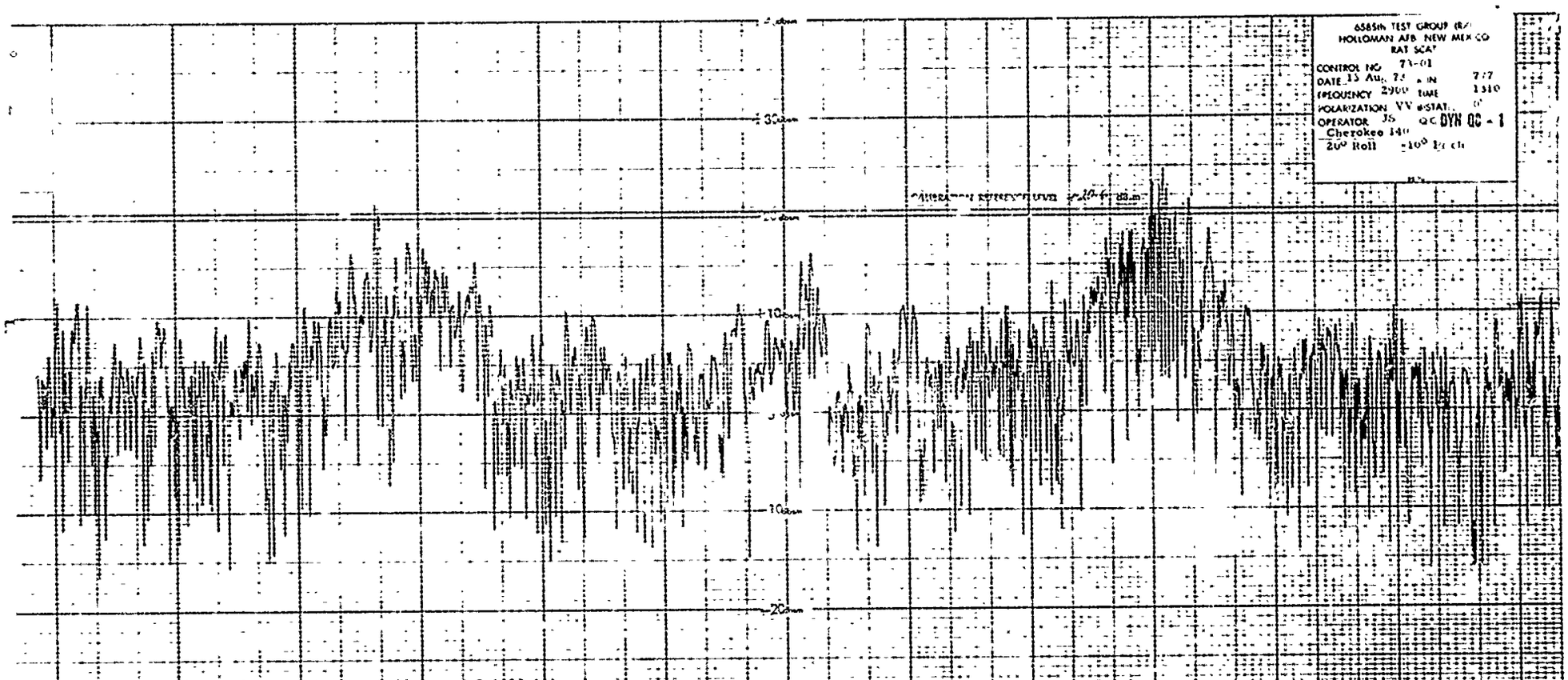

6595th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
PAT SCAT
CONTROL NO 73-01
DATE 8 Aug 73
FREQUENCY 2990
POLARIZATION VV
OPERATOR JD
Cherslee 140
10° Roll, -10° Pitch
CALIBRATION REFERENCE LEVEL
+40
+30
+20
+10
0
-10
-20
180°
210°
240
270
300°
330°
30
60
90°
120°
150°
180°

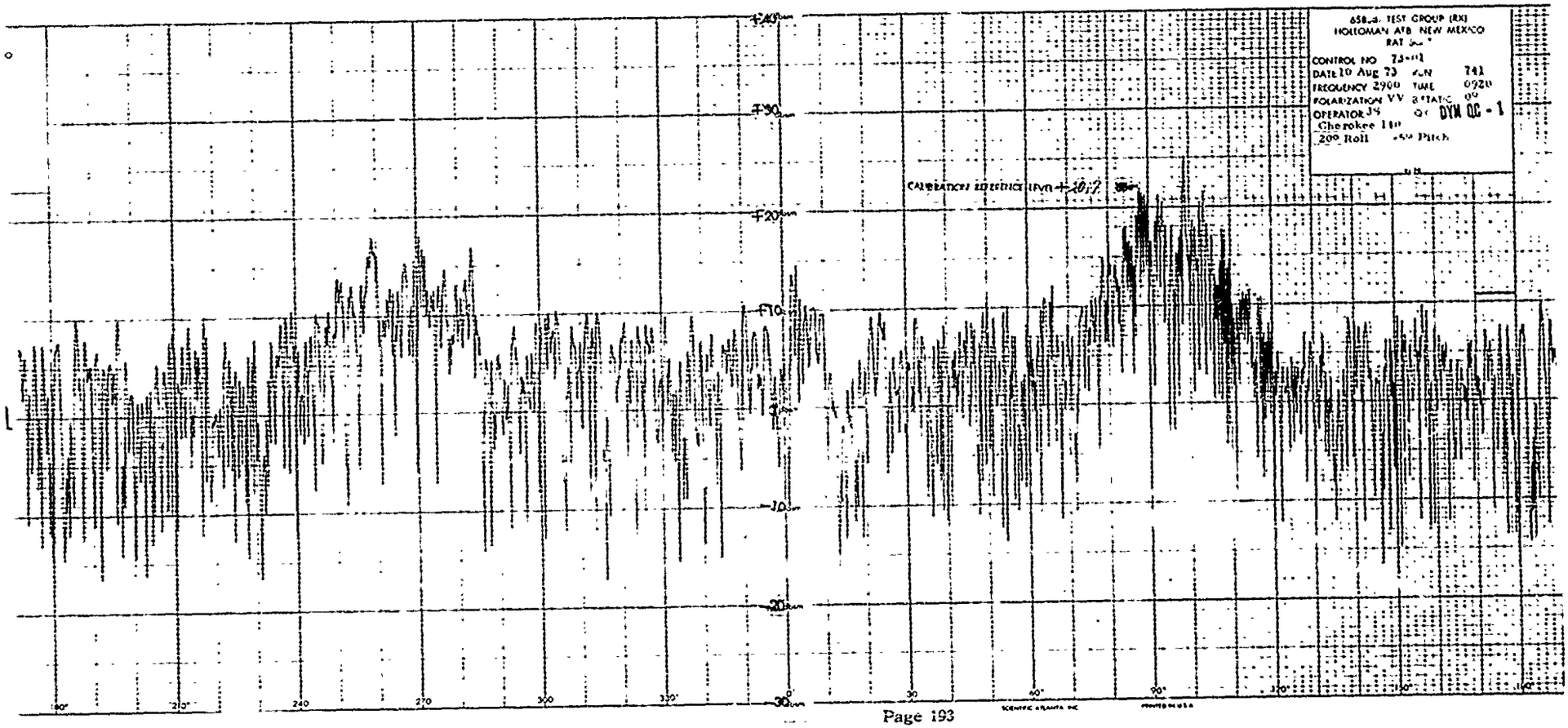

6585th TEST GROUP AXI
HOLLOMAN AFB NEW MEX CC
RAT STAT
CONTROL NO 73-401
DATE 7 Aug 73
OPERATOR MM
Cherokee
10° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL +21.7 dbm
+40 dbm
+30 dbm
+20 dbm
+10 dbm
0 dbm
-10 dbm
-20 dbm
-30 dbm
270°
300°
330°
0°
30°
60°
90°
120°

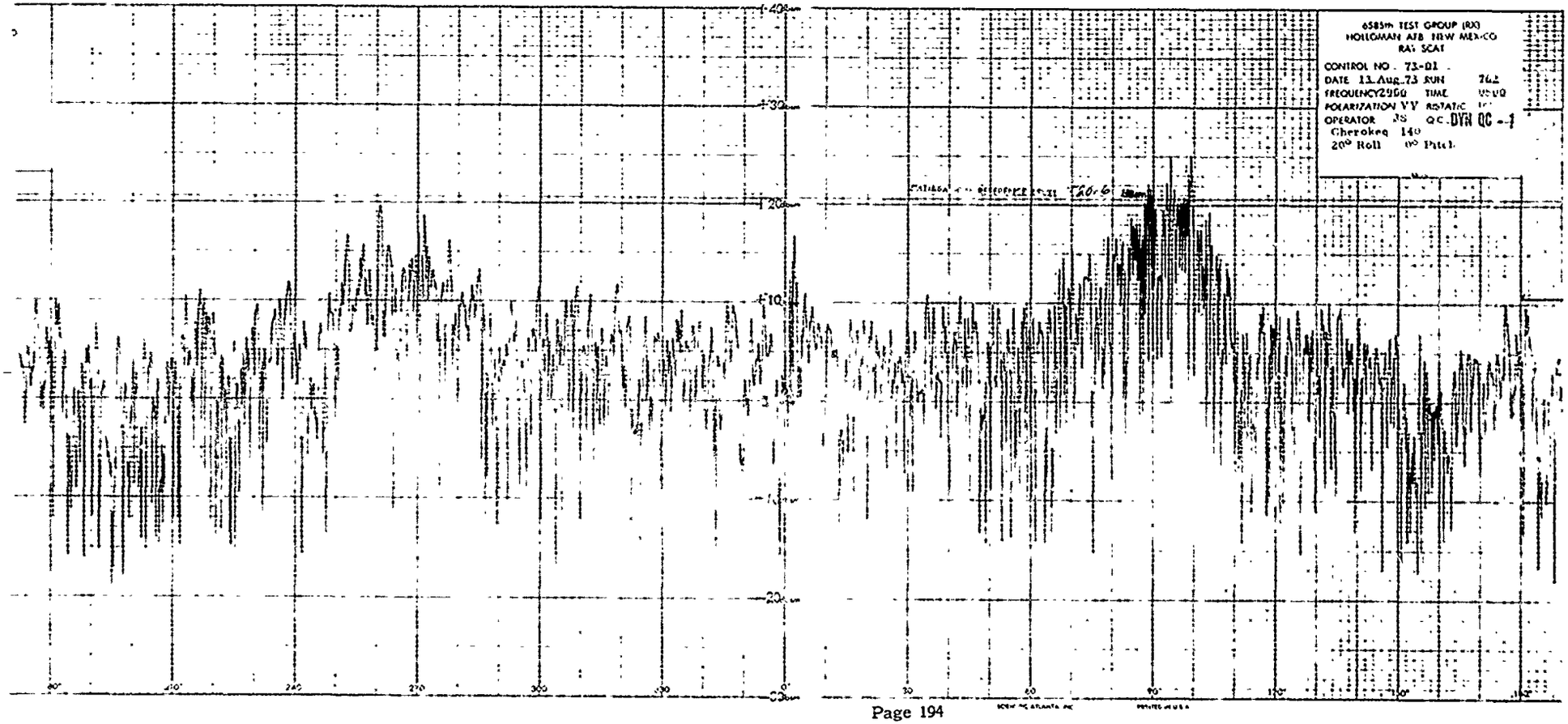

6585th TEST GROUP (PA)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 678
FREQUENCY 2900 TIME 1800
POLARIZATION VV BISTATIC
OPERATOR JS
Cherokee 140
10° Roll, 6° Pitch
ATTENUATION REFERENCE LEVEL +41.7 dBsm
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

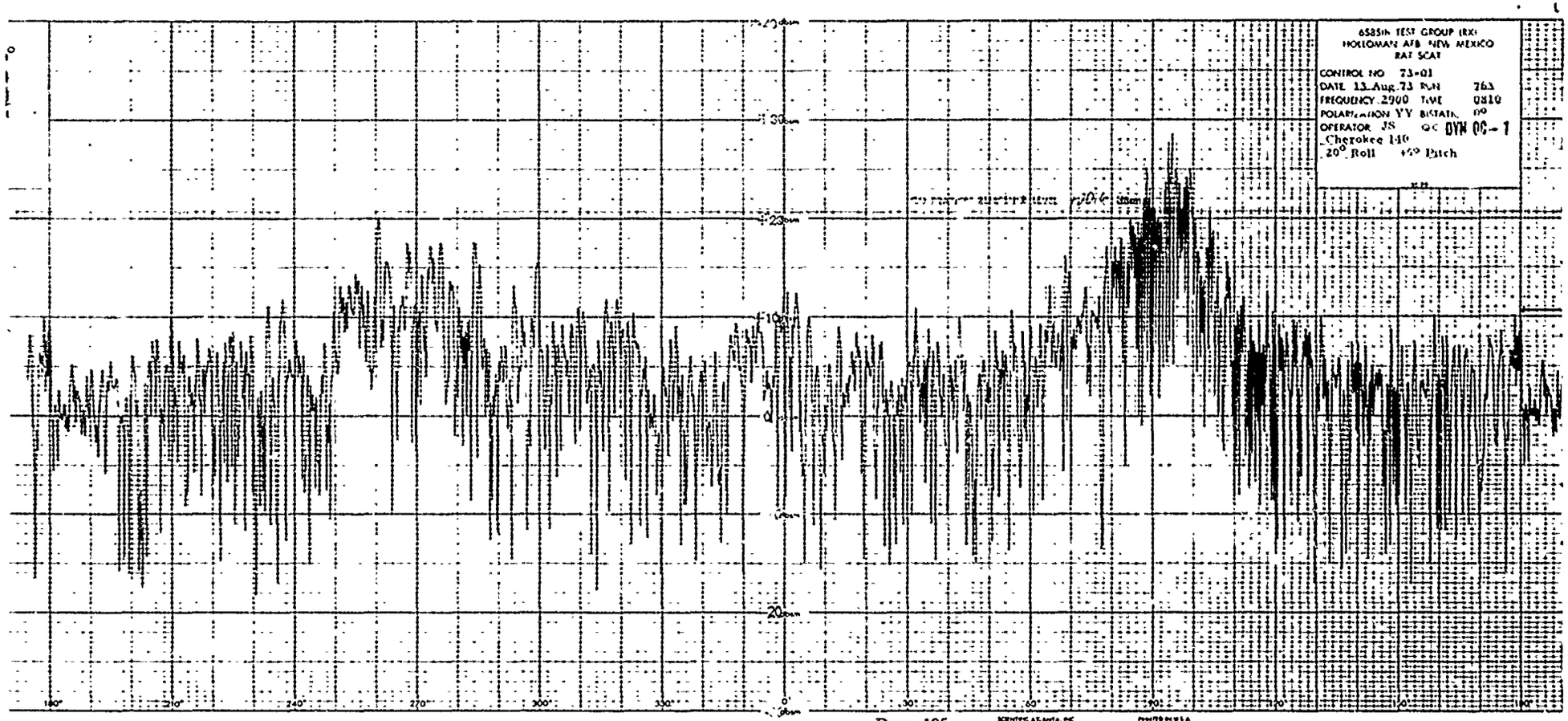

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73
FREQUENCY 7950
TIME 0910
OPERATOR
Cherokee 140
10° Roll, 15° Pitch
+40 dbsm
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270
300
330
0
30
60
90
120
150°
180°

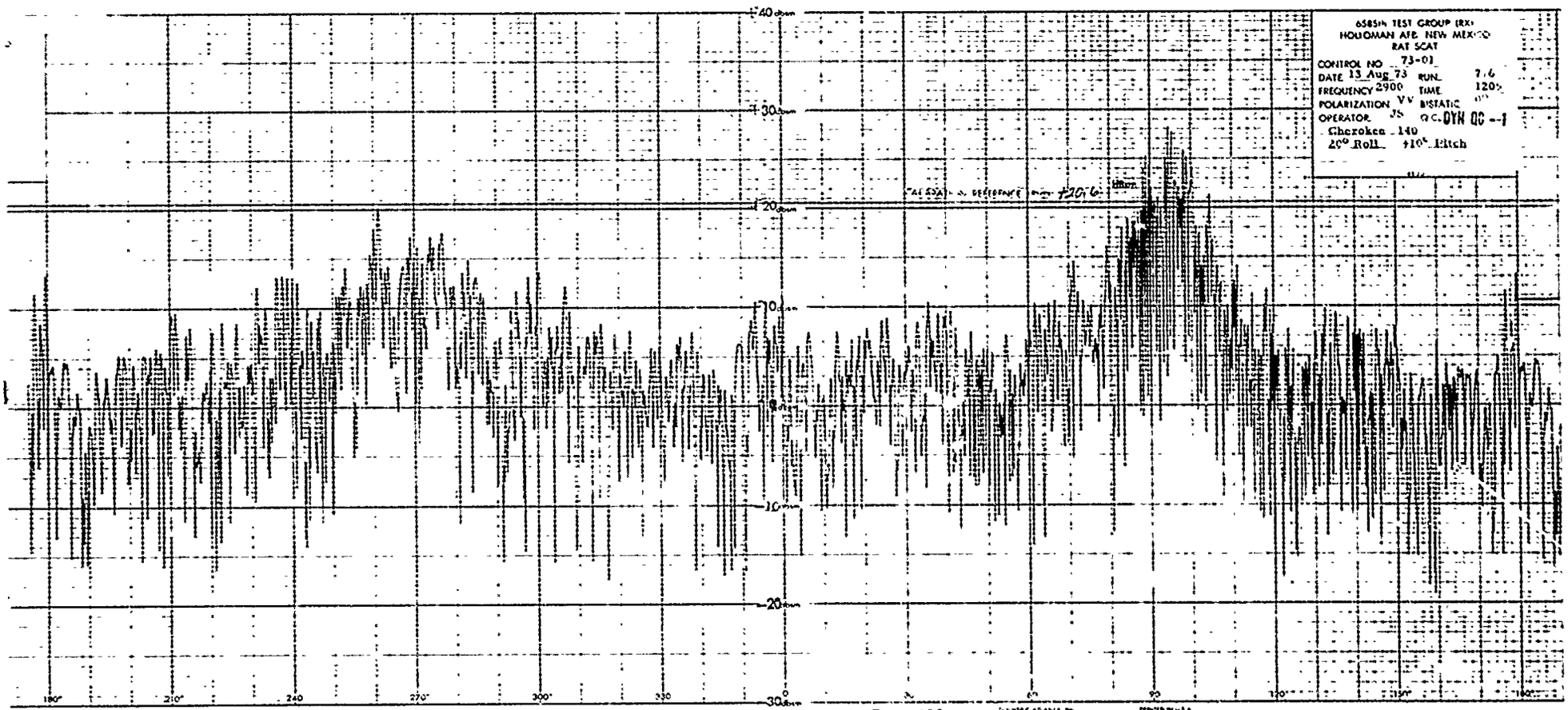

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEX CO
RAT SCAT
CONTROL NO 73-01
DATE Aug 73
TIME 1355
OPERATOR JS
Cherokee (4)
10° Roll, +10° Pitch
-40
-30
-20
-10
0
10
180
210
240
270
300
330
30
60
90

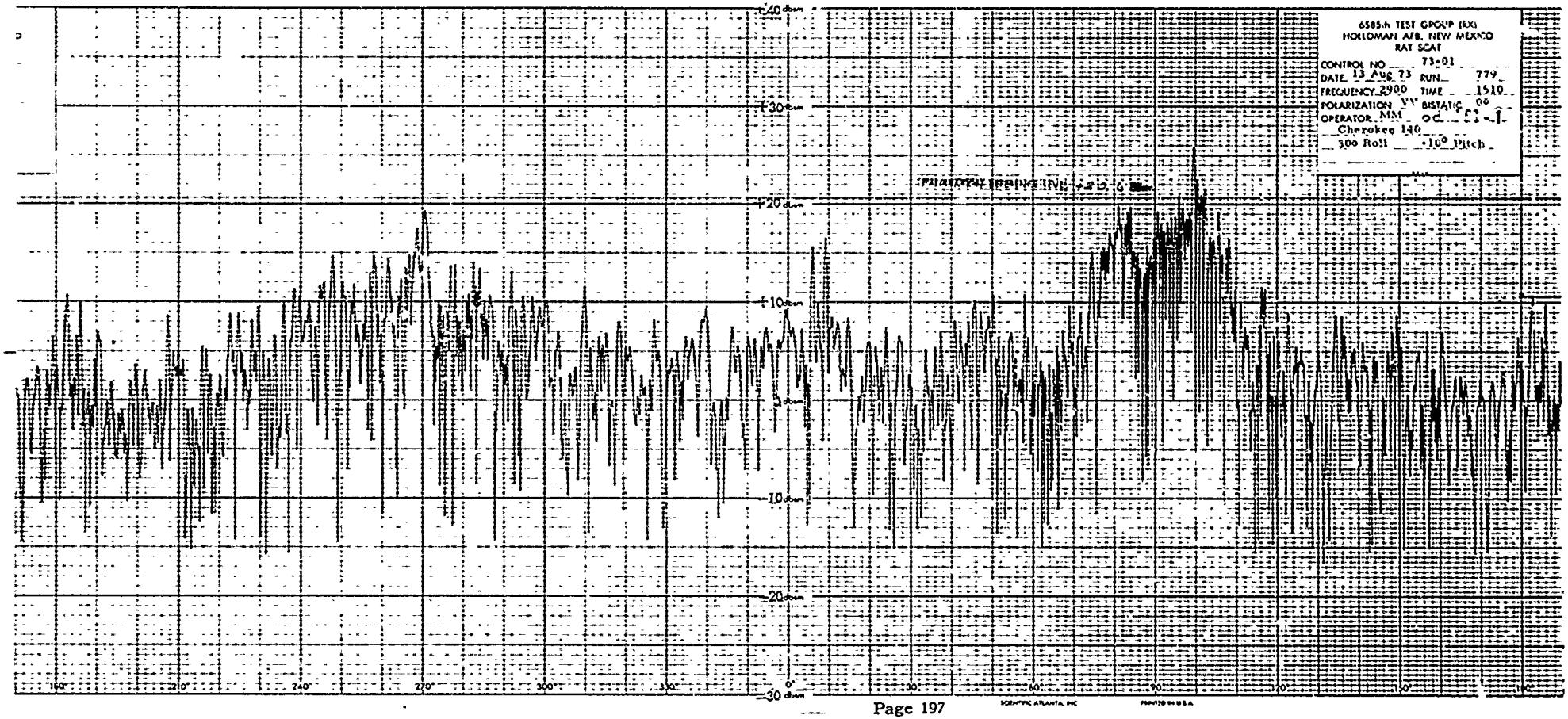

6585th TEST GROUP (R/
HOLLOMAN AFB NEW MEX CO
RAT SCAT
CONTROL NO 73-01
DATE 15 Au 73 IN 717
FREQUENCY 2900 TIME 1310
POLARIZATION VV STAT 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
20° Roll
-10
-20
-30
180°
210°
240
270°
300°
330°
0°
30°
60°
90°

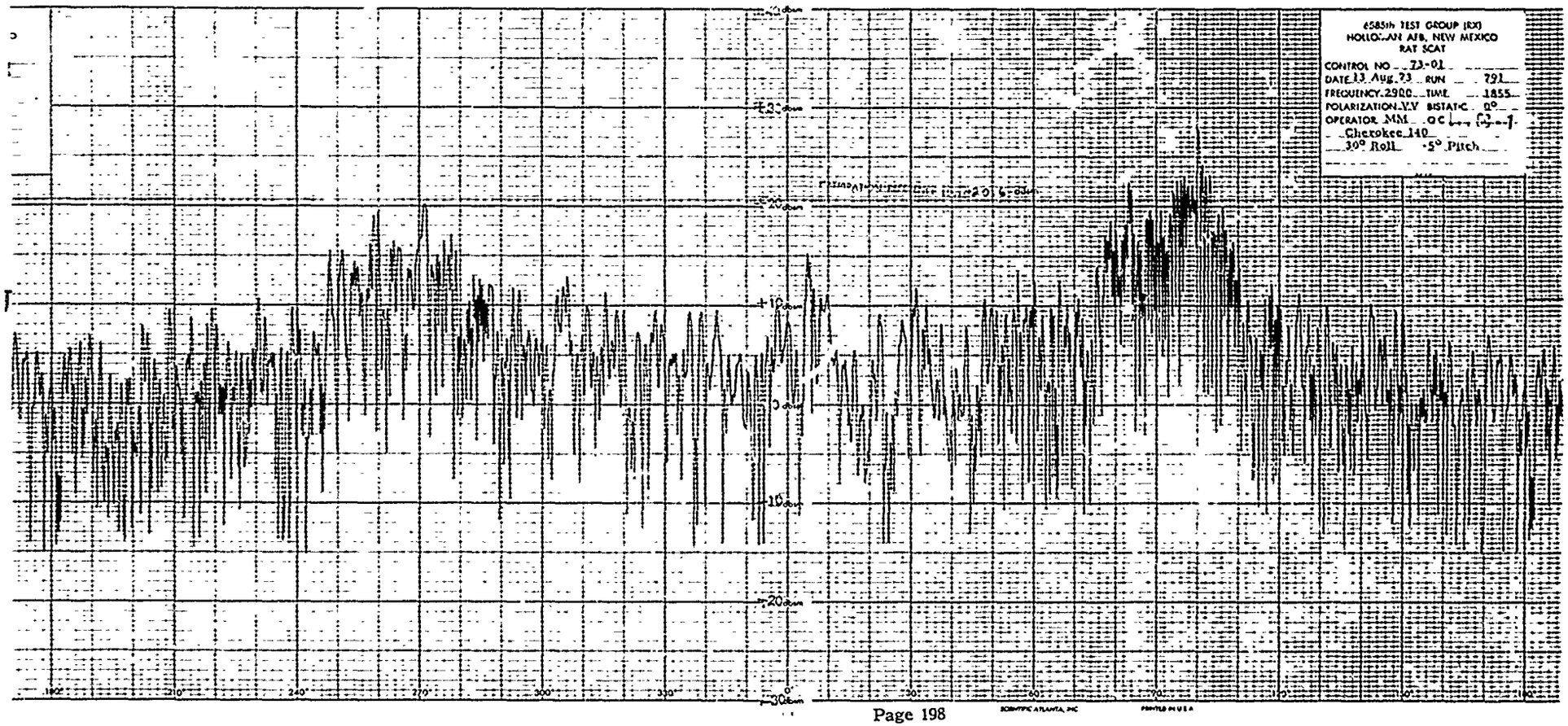

658-A TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
CONTROL NO 73-
DATE 10 Aug 73 RUN 741
FREQUENCY 2900 TIME 0920
POLARIZATION VV ROTATION 0°
OPERATOR JS QC DYN QC - 1
Cherokee 180
20° Roll +50 Pitch
CALIBRATION REFERENCE LEVEL +10.7 dBm
+40
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270
300
330°
0°
30
60°
90°
120°
150°
180°
SCIENTIFIC ATLANTA INC
PRINTED IN U.S.A.

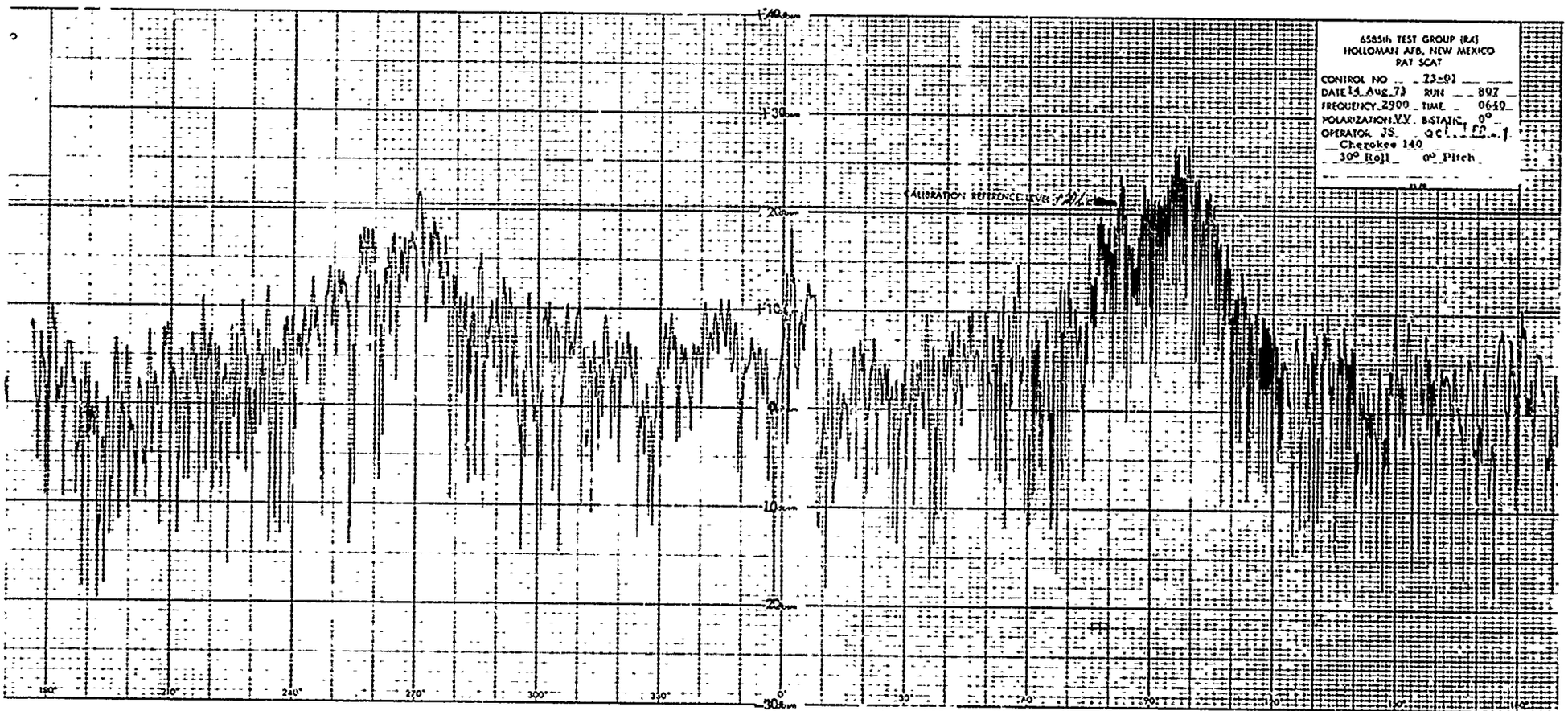

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAI SCAT
CONTROL NO. 73-01
DATE 13 Aug 73 RUN 742
FREQUENCY 2900 TIME
POLARIZATION VV ROTATIC
OPERATOR JS QC DYN QC -1
Cherokee 140
20° Roll 0° Pitch
-40
-30
-20
-10
0
-20
240
270
300
30
60
90
120
150
180

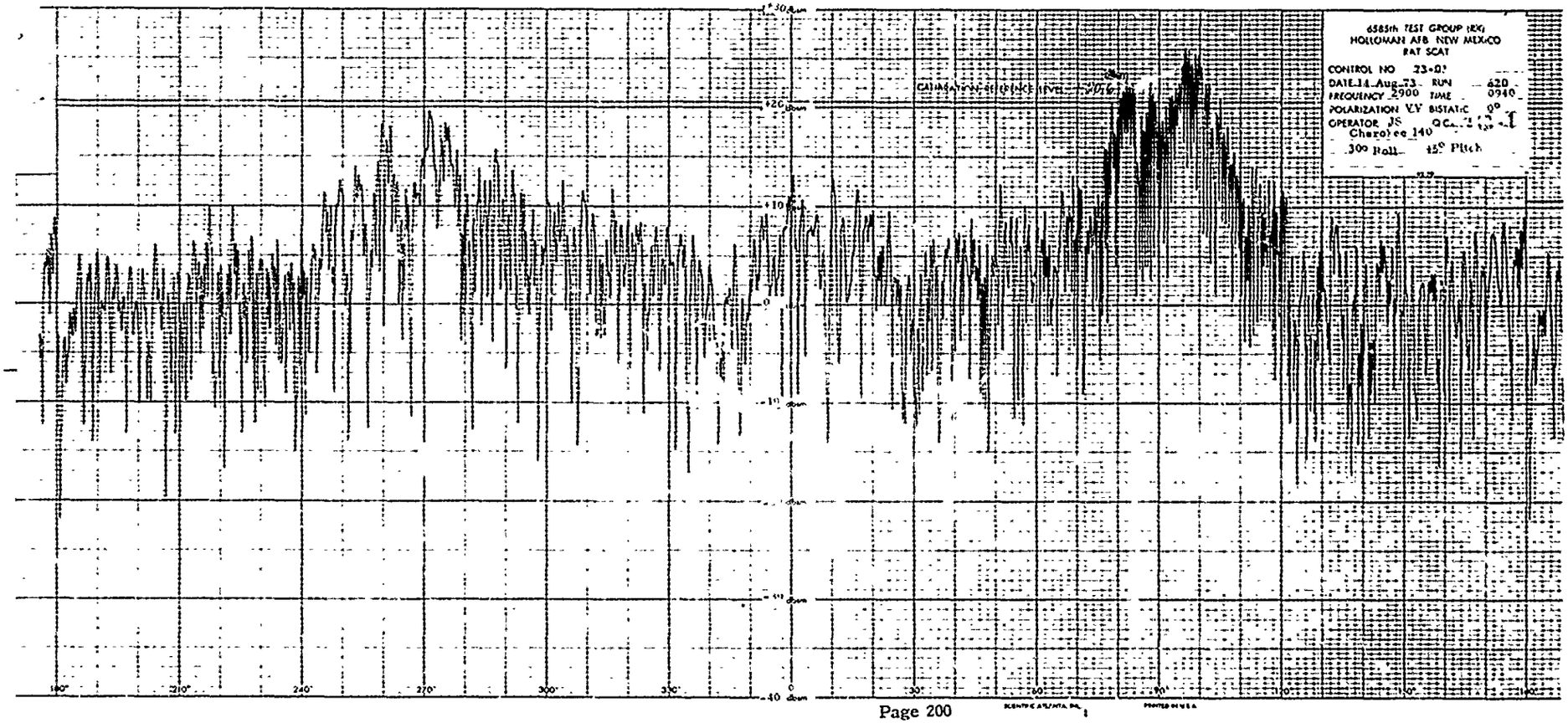

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 763
FREQUENCY 2900 TIME 0810
POLARIZATION YY BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
20° Roll +9° Pitch
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

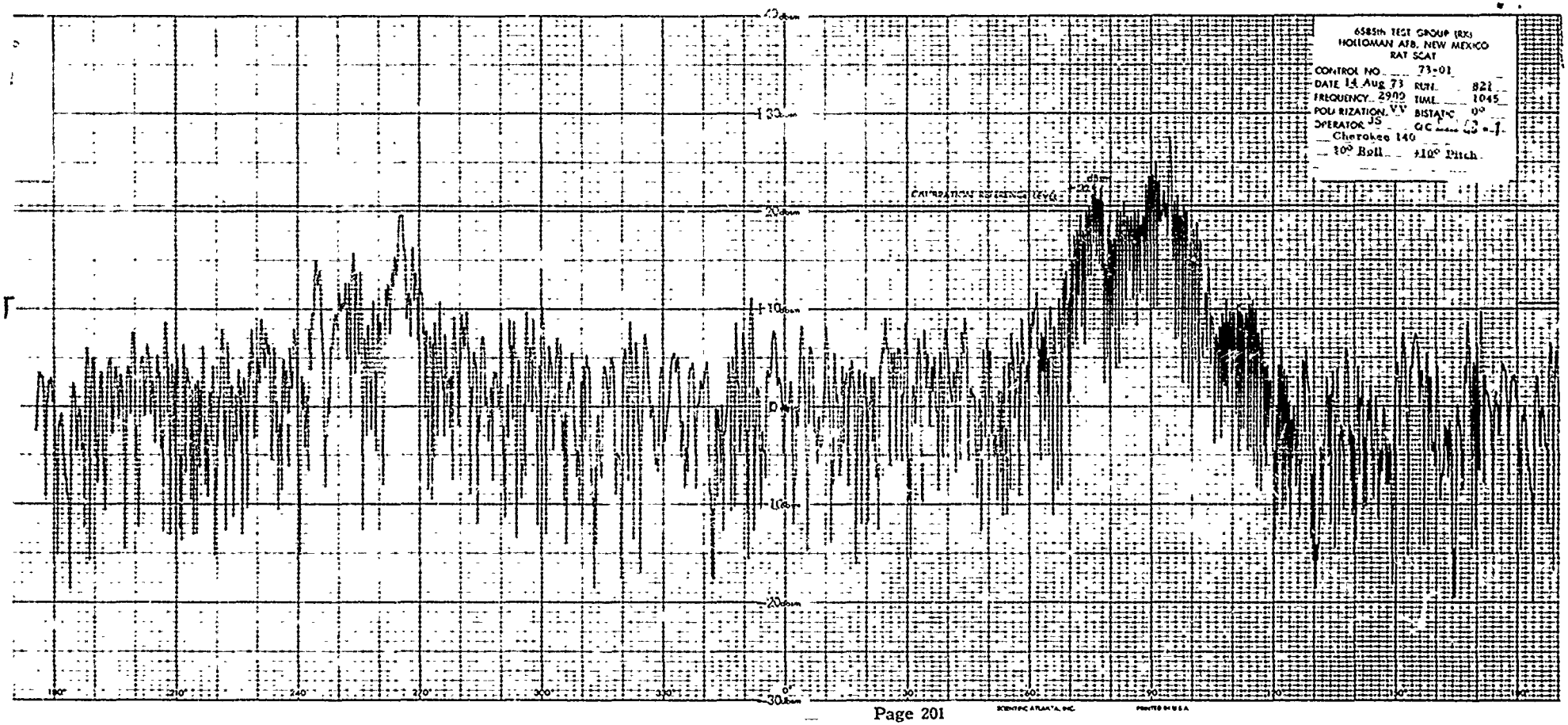

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 716
FREQUENCY 2900 TIME 1205
POLARIZATION VV BISTATIC
OPERATOR JS QC DYN QC -1
Cherokee 140
20° Roll +10° Pitch
-40 dbsm
-30 dbsm
-20 dbsm
-10 dbsm
0 dbsm
10 dbsm
20 dbsm
30 dbsm
180°
210°
240
270°
300°
330
0
N
60
90
120°
150°
180°

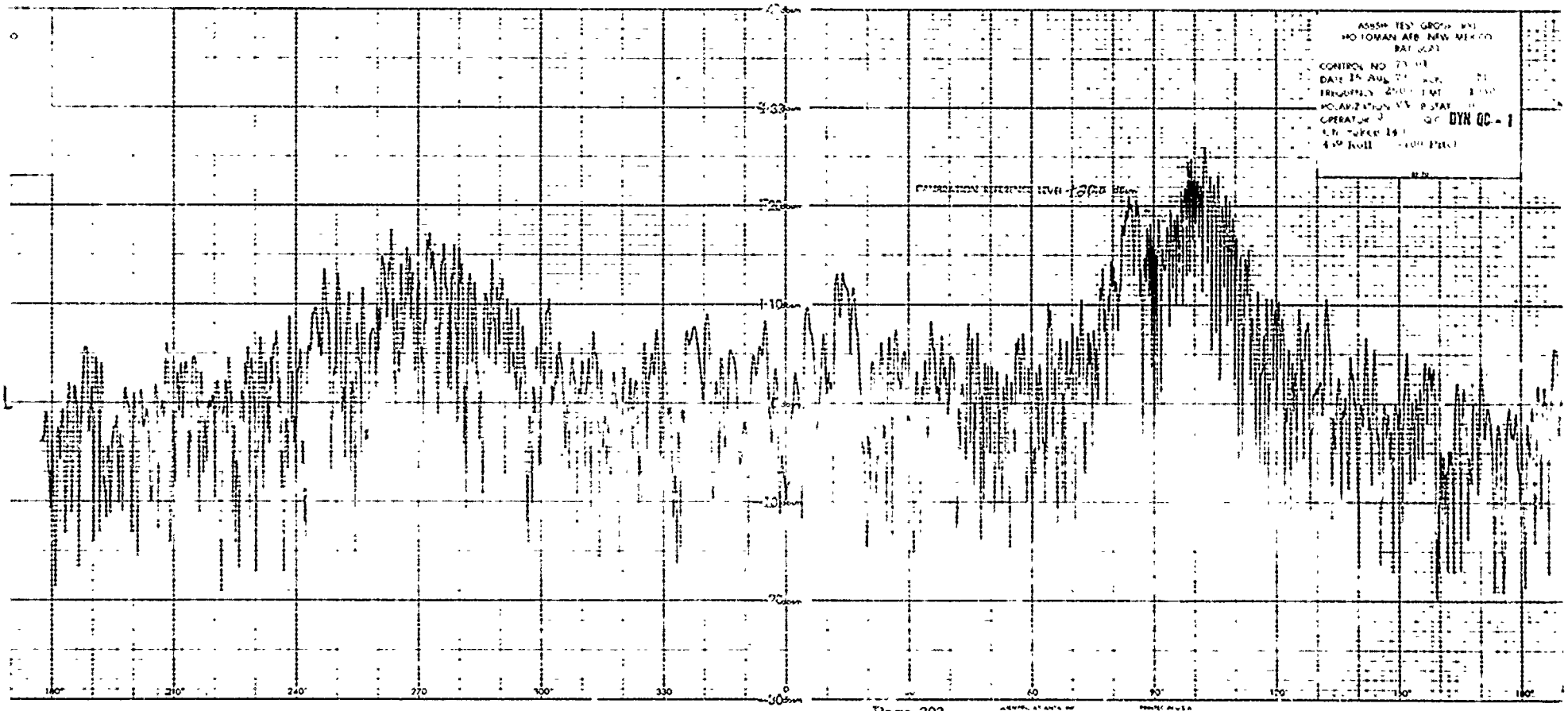

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 779
FREQUENCY 2900 TIME 1510
POLARIZATION VV BISTATIC 00
OPERATOR MM OC FC-1
Cherokee 140
300 Roll -10° Pitch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

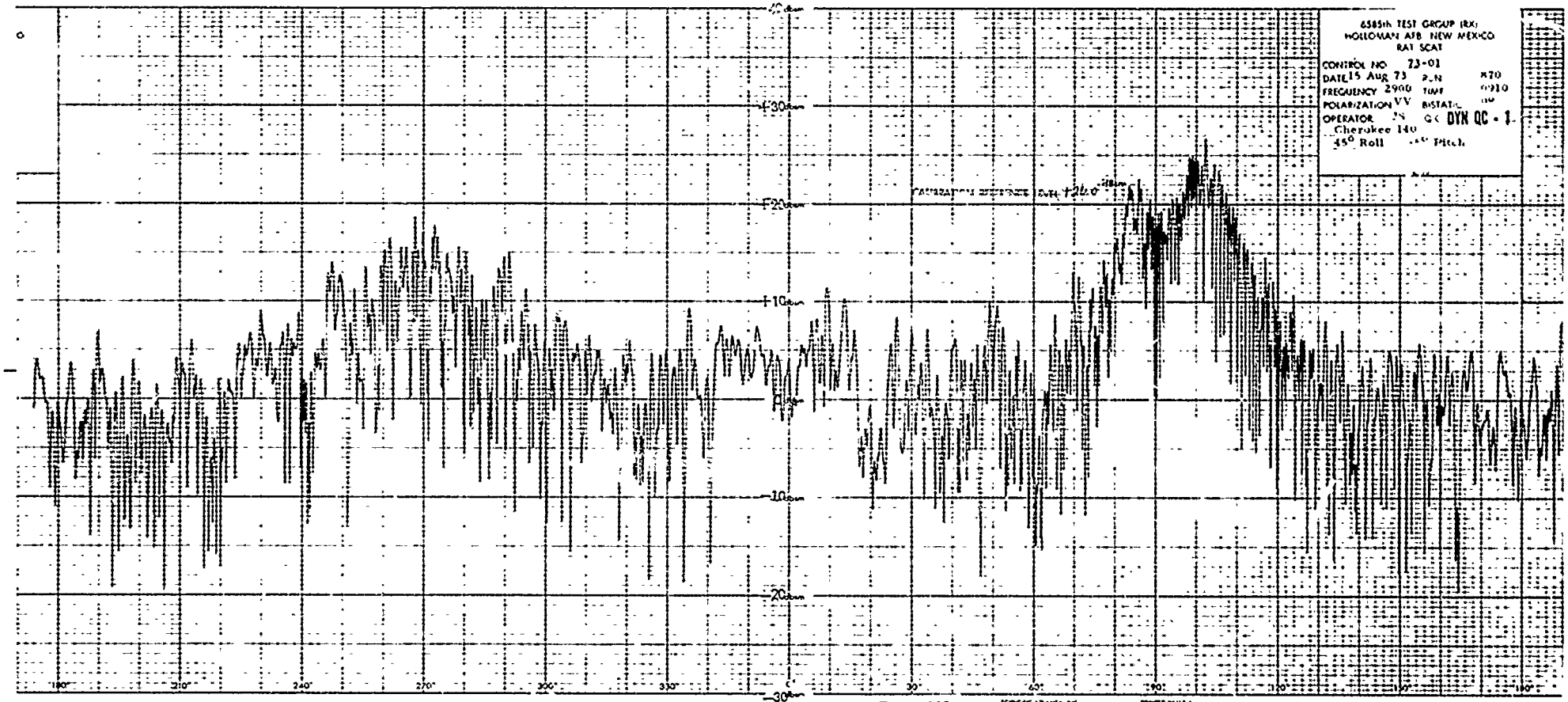

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 791
FREQUENCY 2900 TIME 1855
POLARIZATION V-V BISTATIC 0°
OPERATOR MM OC
Cherokee 140
30° Roll -5° Pitch
-10 dbsm
0 dbsm
+10 dbsm
+20 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

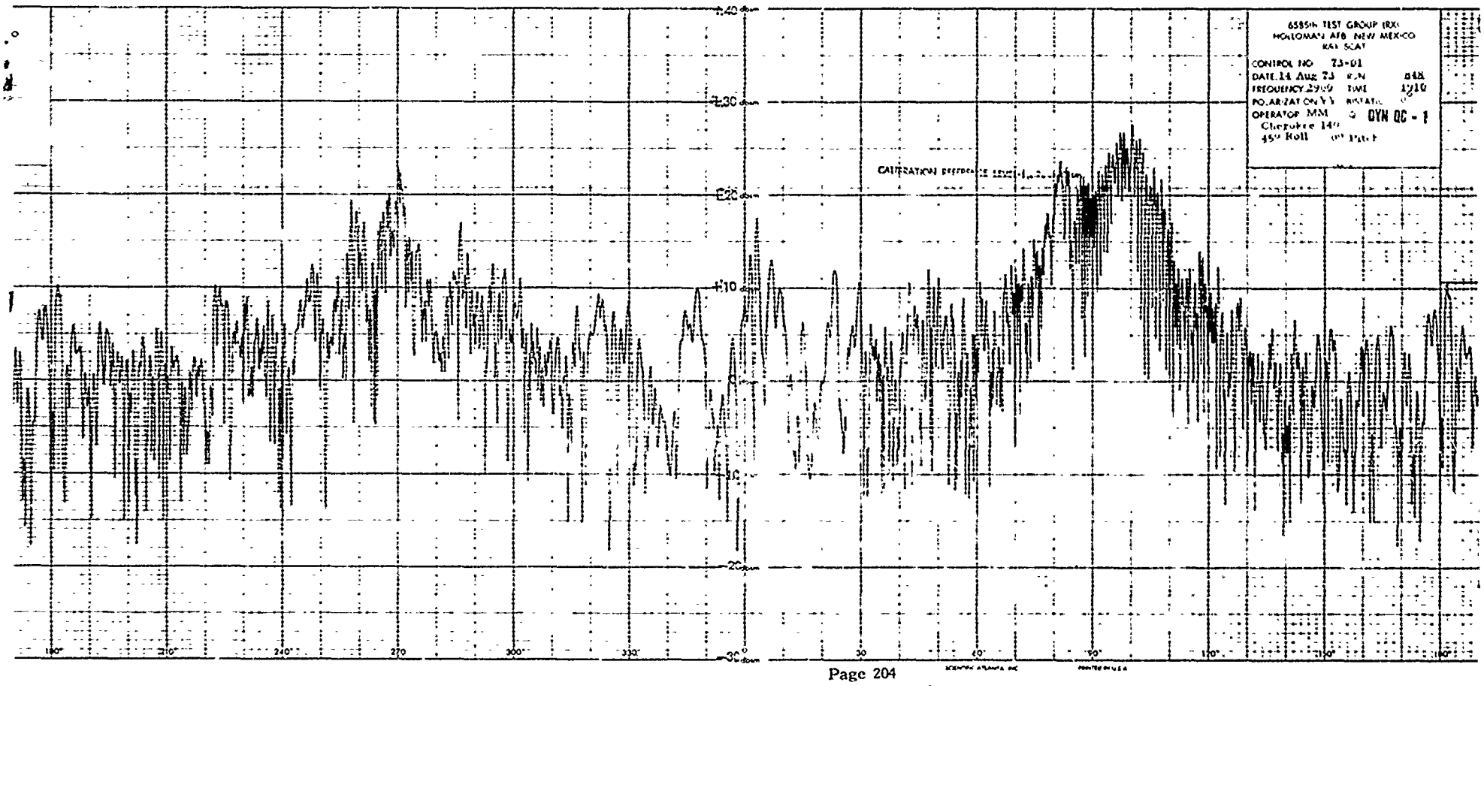

6585th TEST GROUP (RA)
HOLLOMAN AFB, NEW MEXICO
PAT SCAT
CONTROL NO 23-01
DATE 14 Aug 73 RUN 807
FREQUENCY 2900 TIME 0649
POLARIZATION VV BISTATIC 0°
OPERATOR JS
Cherokee 140
30° Roll 0° Pitch
CALIBRATION REFERENCE LEVEL
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240°
270°
300°
330°
0°
30°
70°
90°
110°
140°

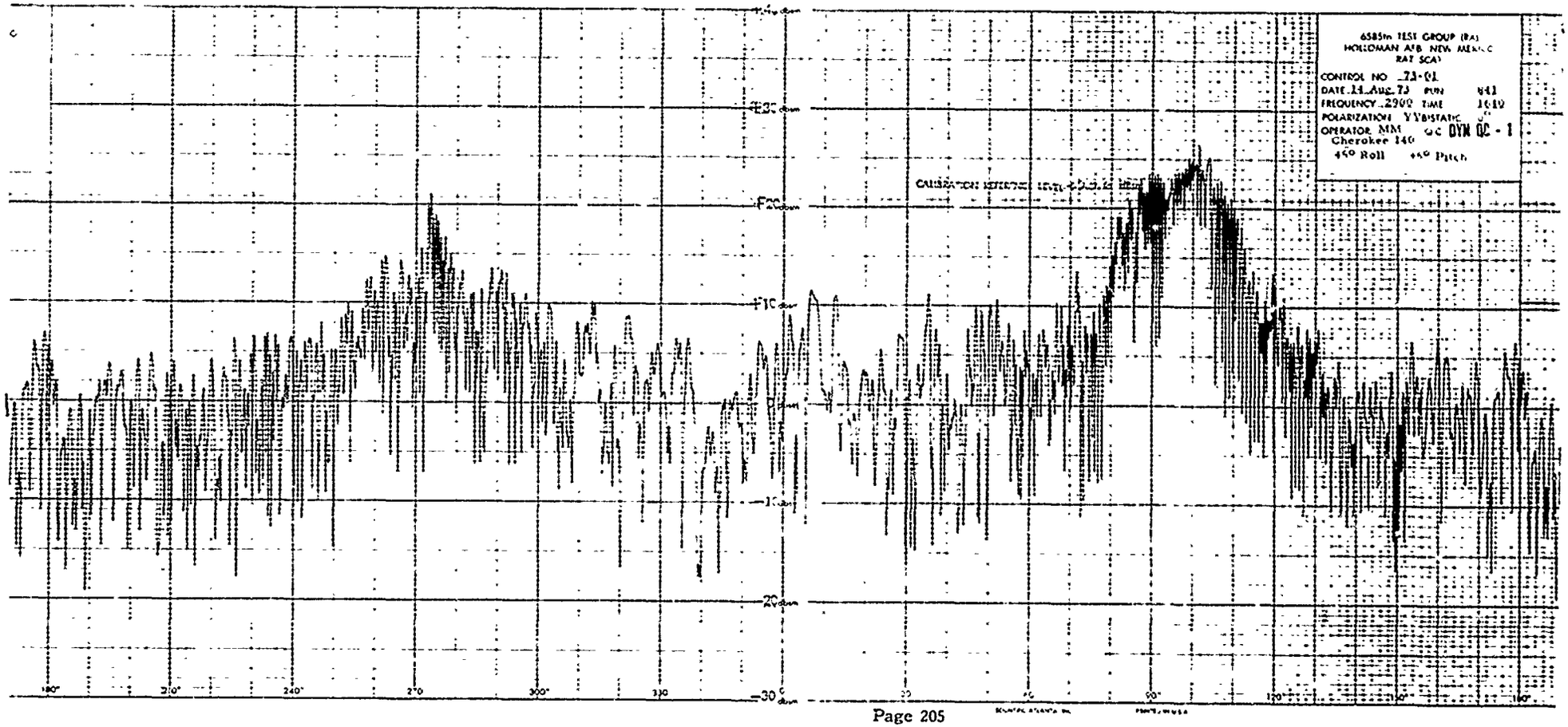

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 23-01
DATE 14 Aug 73 RUN 620
FREQUENCY 2900 TIME 0940
POLARIZATION VV BISTATIC 0°
OPERATOR JS
Cherokee 140°
30° Roll 45° Pitch
+30 dbsm
+20 dbsm
+10
0
-10 dbsm
-20 dbsm
-30 dbsm
-40 dbsm
180°
210°
240°
270°
300°
330°
0
30°
60°
90°

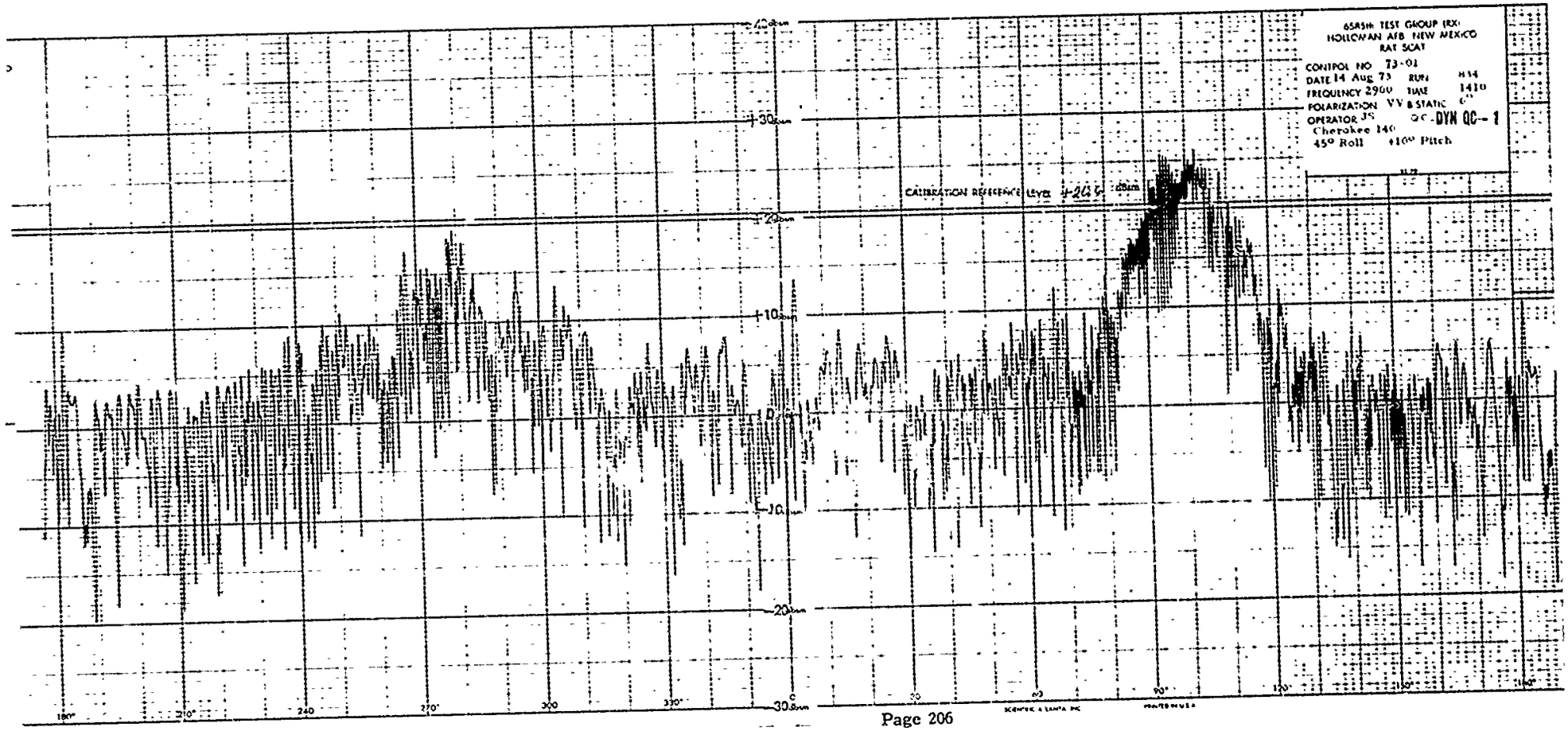

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 14 Aug 73 RUN 821
FREQUENCY 2909 TIME 1045
POLARIZATION VV BISTATIC 0°
OPERATOR JS GC
Cherokee 140
-10° Roll +10° Pitch
CALIBRATION REFERENCE LEVEL
20 dBsm
10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°

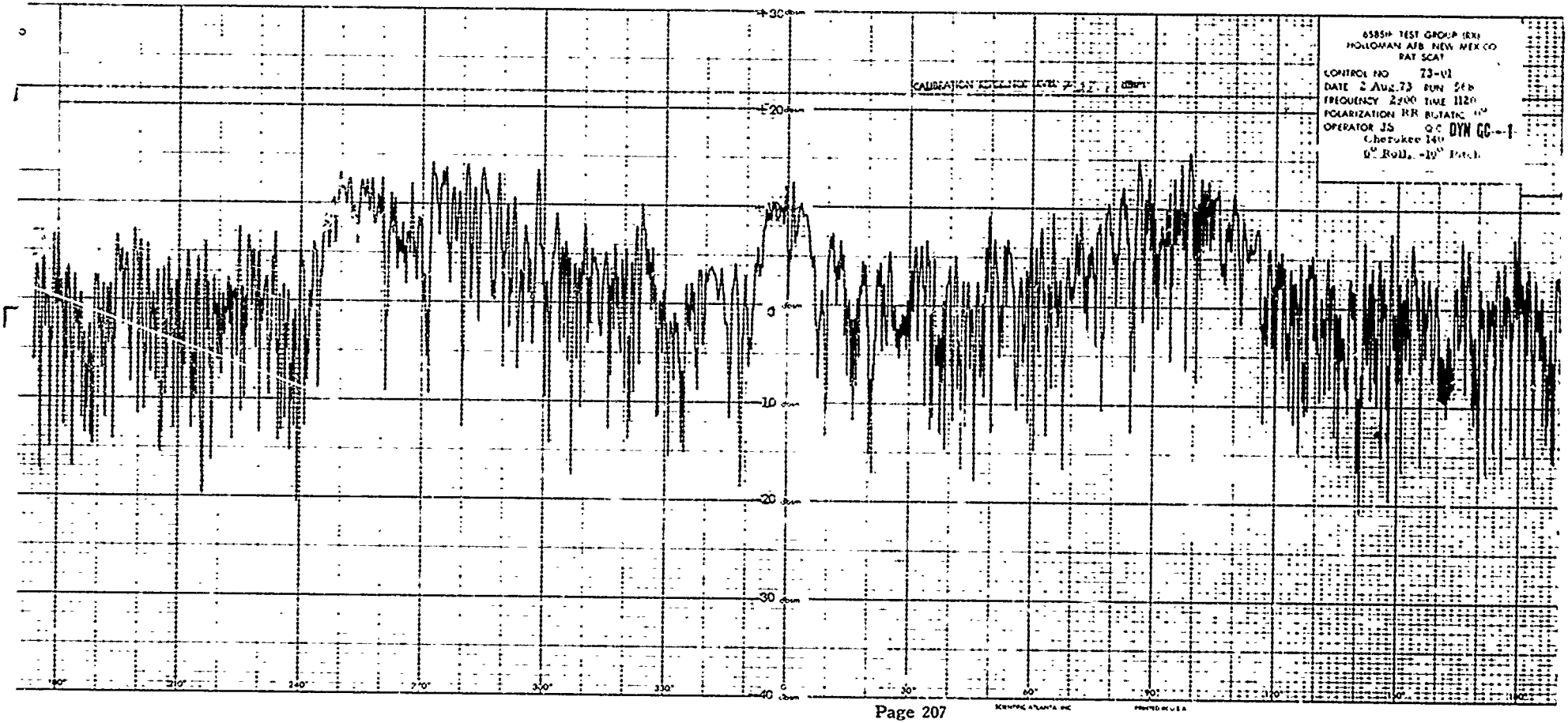

DYN QC - 1
-33
-20
-10
0
10
20
-30
180°
210°
240°
270
300°
330
0
30
60
90°
120
150°
180°

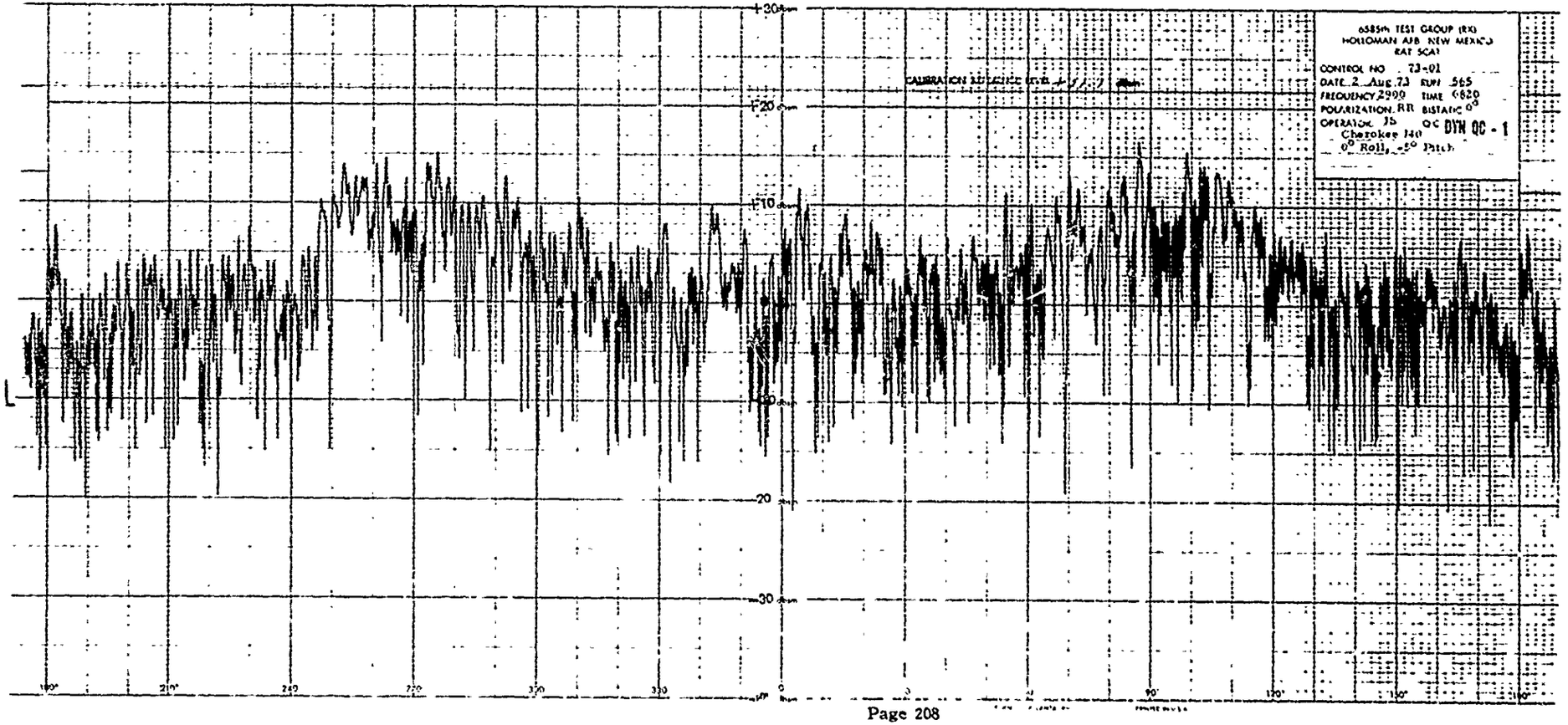

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73
FREQUENCY 2900
POLARIZATION VV
OPERATOR
Cherokee 140
55° Roll
DYN QC - 1
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

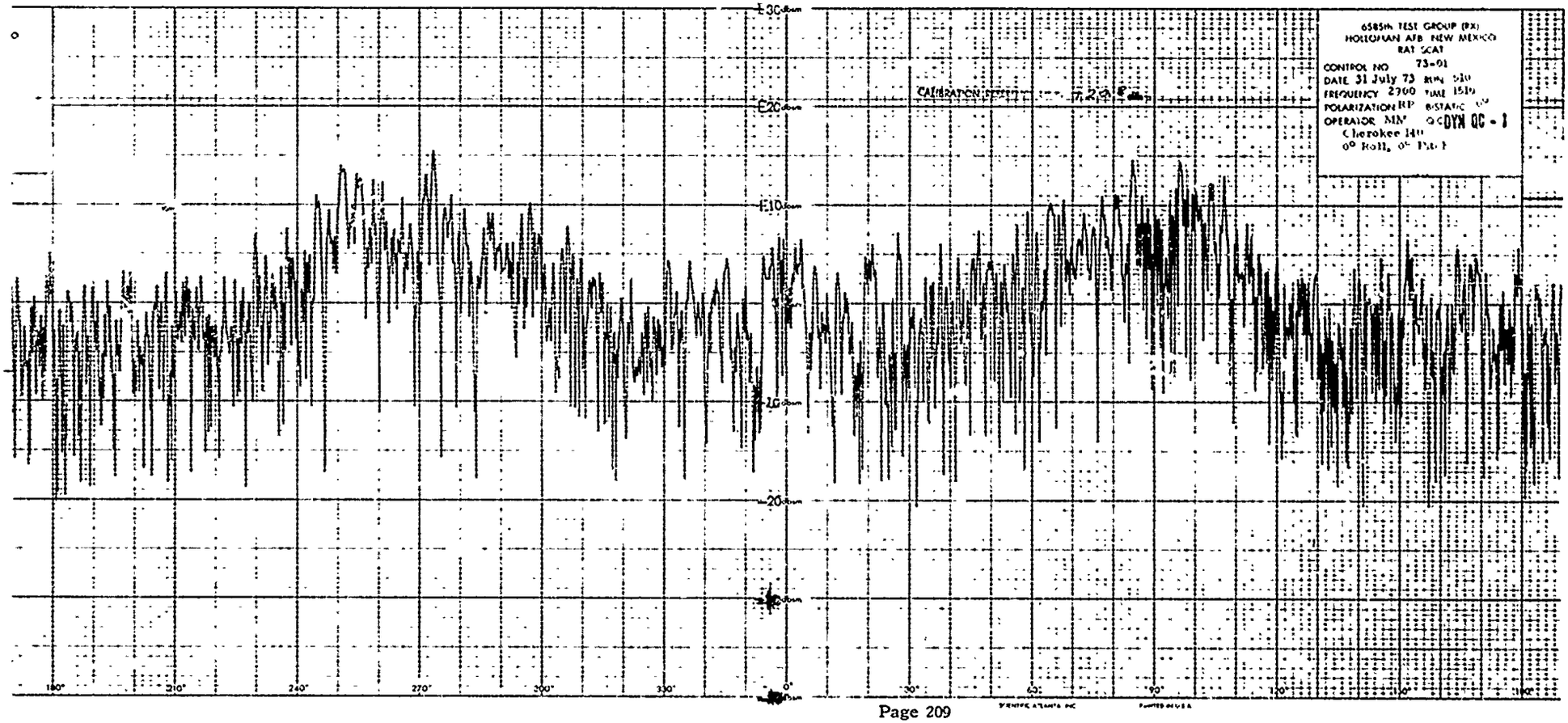

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAI SCAT
CONTROL NO 73-01
DATE 14 Aug 73
FREQUENCY 2909
POLARIZATION V V
OPERATOR MM
Cherokee 140
45° Roll
OYN QC - 1
CALIBRATION REFERENCE
-40 dbsm
-30
-20
-10
0
+10
+20
+30
180°
210°
240°
270
300°
330°
0°
30
60°
90°
120°
150°
180°

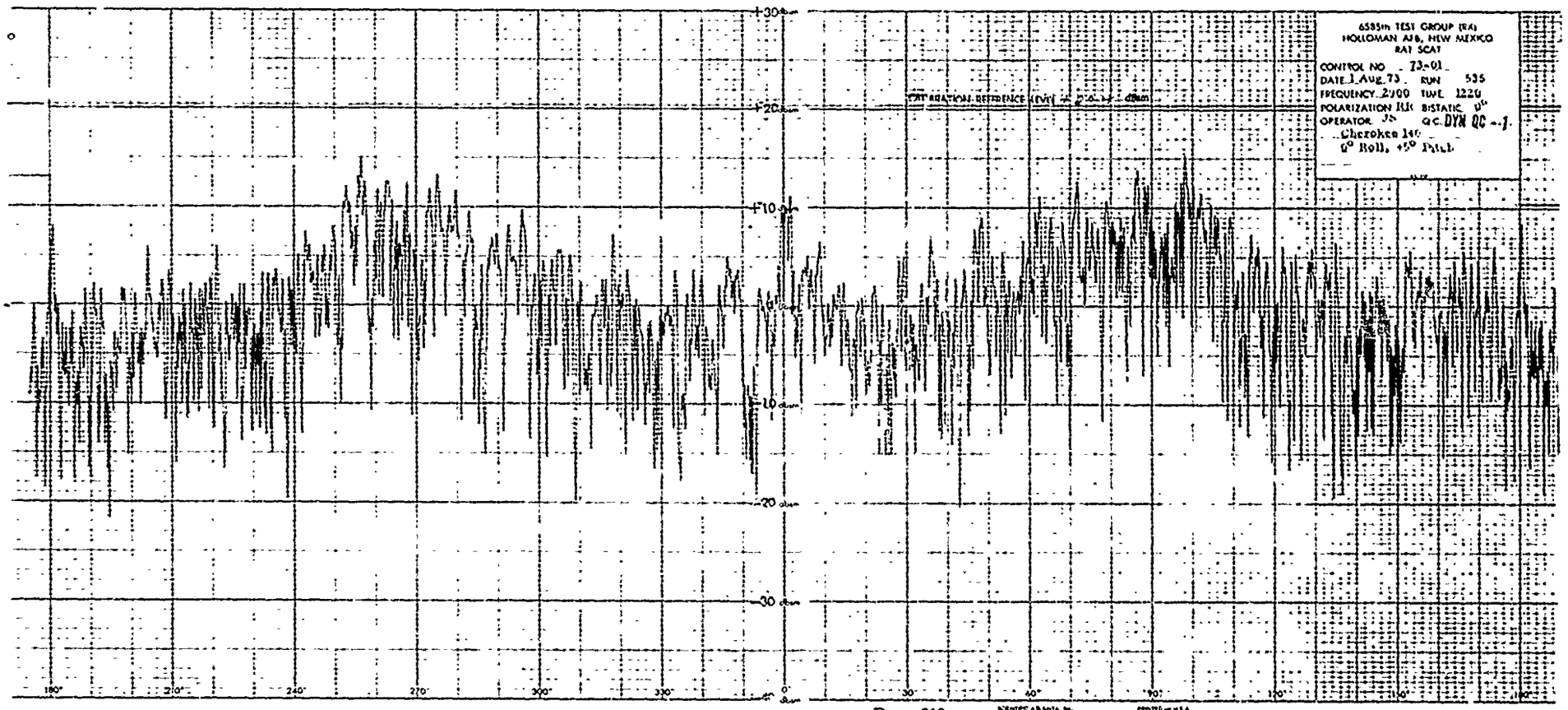

6585th TEST GROUP (RA)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 841
FREQUENCY 2900 TIME 1610
POLARIZATION VV BISTATIC
OPERATOR MM QC DYN QC - 1
Cherokee 140
45° Roll +45° Pitch
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330
90°

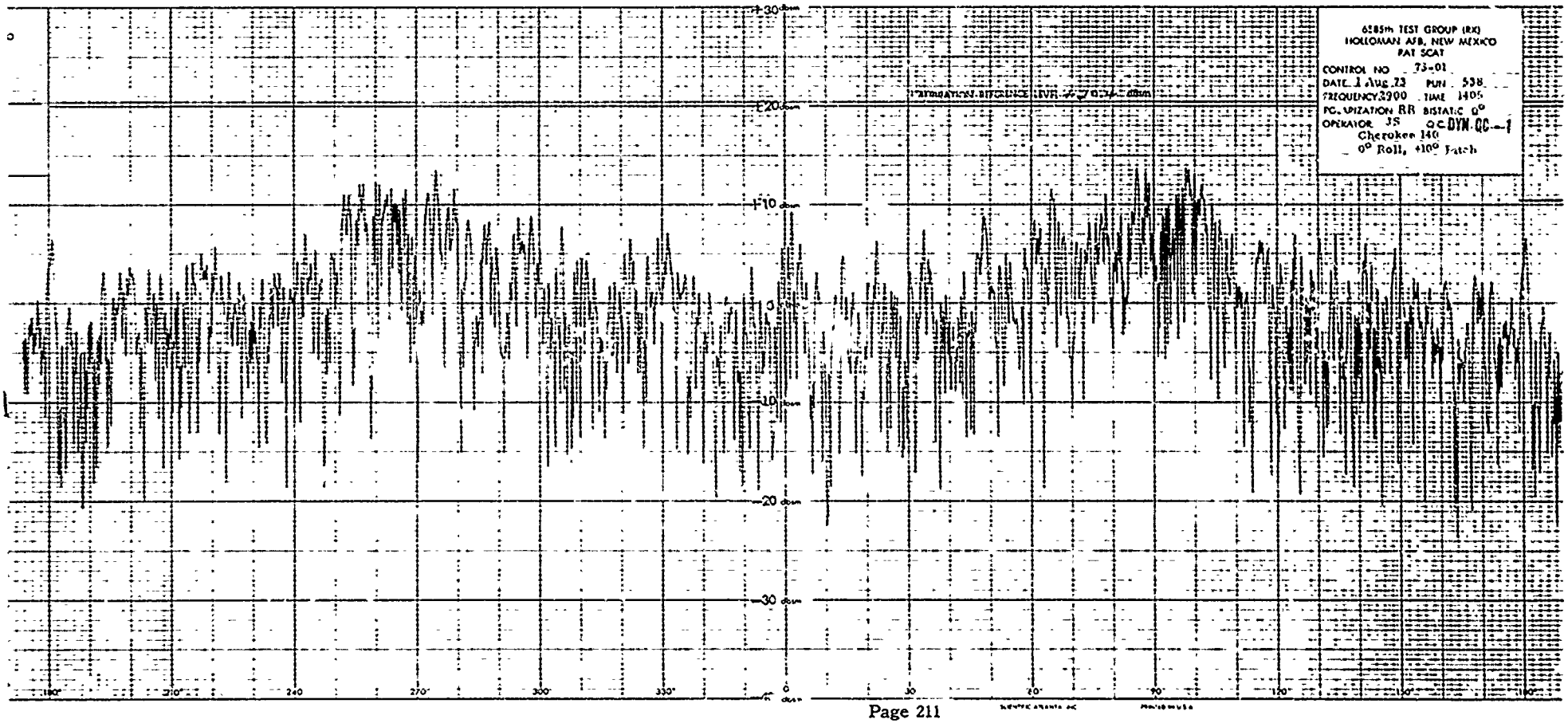

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN
FREQUENCY 2900 TIME 1410
POLARIZATION VV
OPERATOR JS
Cherokee 140
45° Roll +10° Pitch
CALIBRATION REFERENCE LEVEL
-30
-20
-10
0
10
20
30
180°
210°
240
270°
300
330°
0
30
60
90°
120°
150°
180°

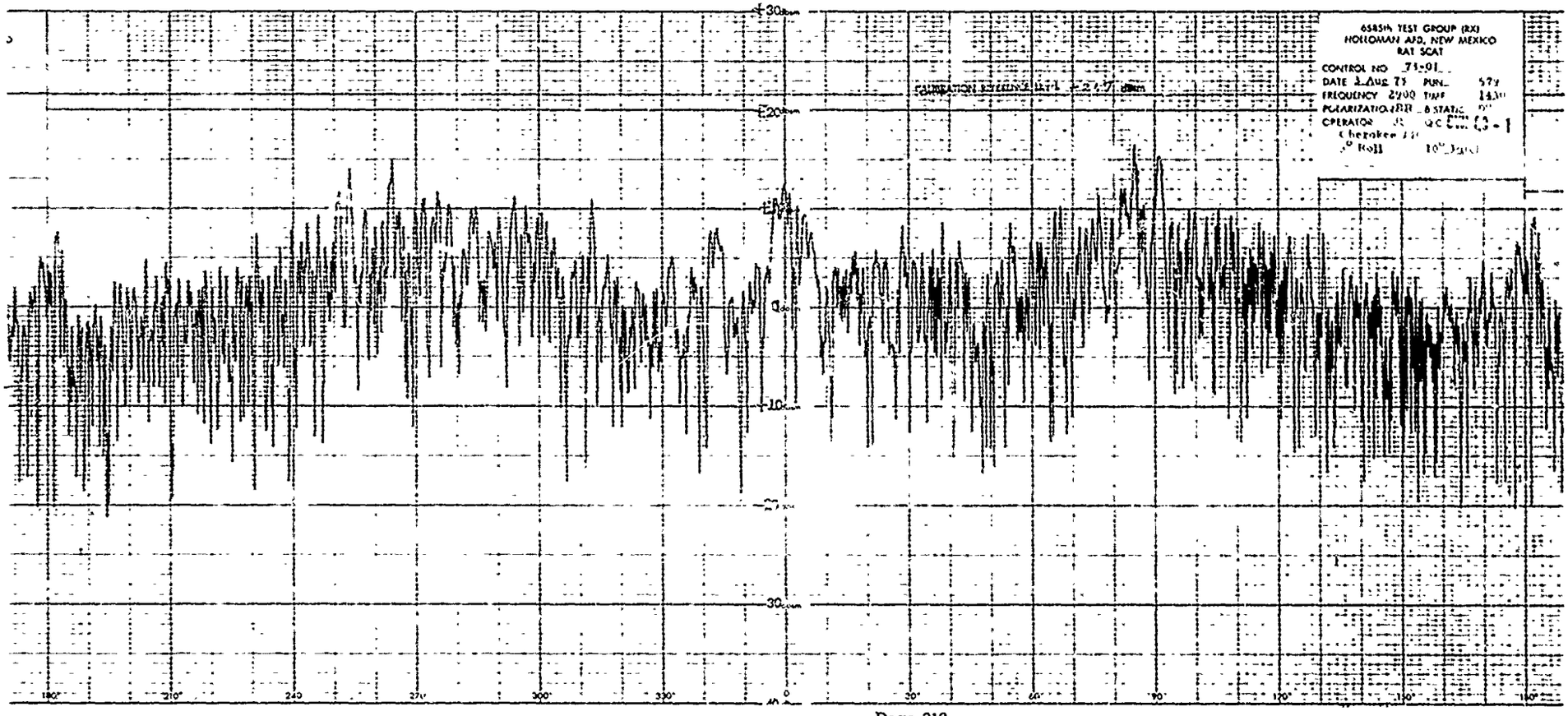

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
PAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 56b
FREQUENCY 2200 TIME 1120
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
0° Roll, -10° Pitch
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
-40 dbsm
30°
60°
90°

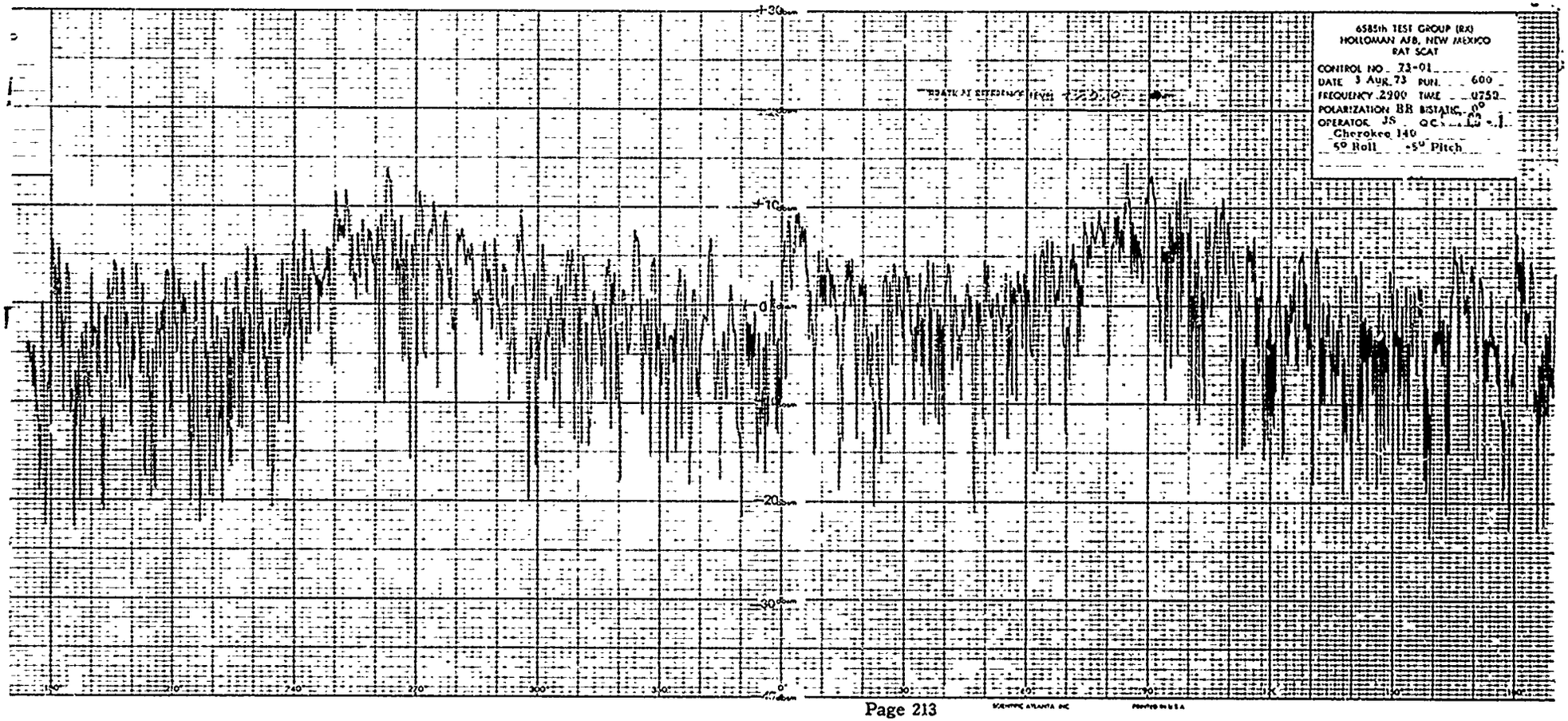

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 2 Aug 73 RUN 565
FREQUENCY 2900 TIME 0820
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC - 1
Cherokee 140
0° Roll, -5° Pitch
+30
+20
+10
0
-10
-20
-30
100°
210°
240
270
300
330
0°
30
90°
120°
150°
180°

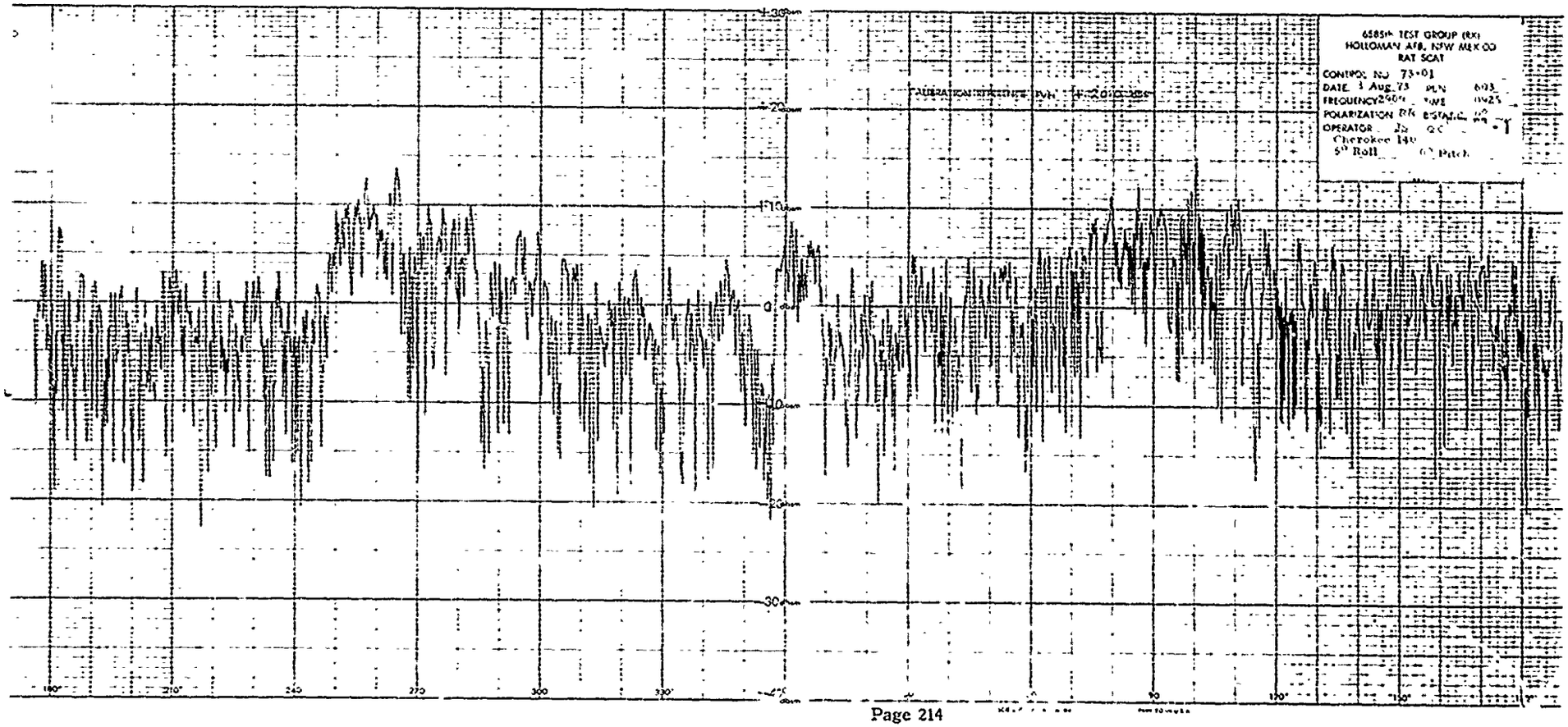

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-91
DATE 31 July 73 RUN 530
FREQUENCY 2700 TIME 1519
POLARIZATION RP BISTATIC 0°
OPERATOR MN QC DYN QC - 1
Cherokee 140
0° Roll, 0° Pitch
CALIBRATION
+30
+20
+10
0
-10
-20
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

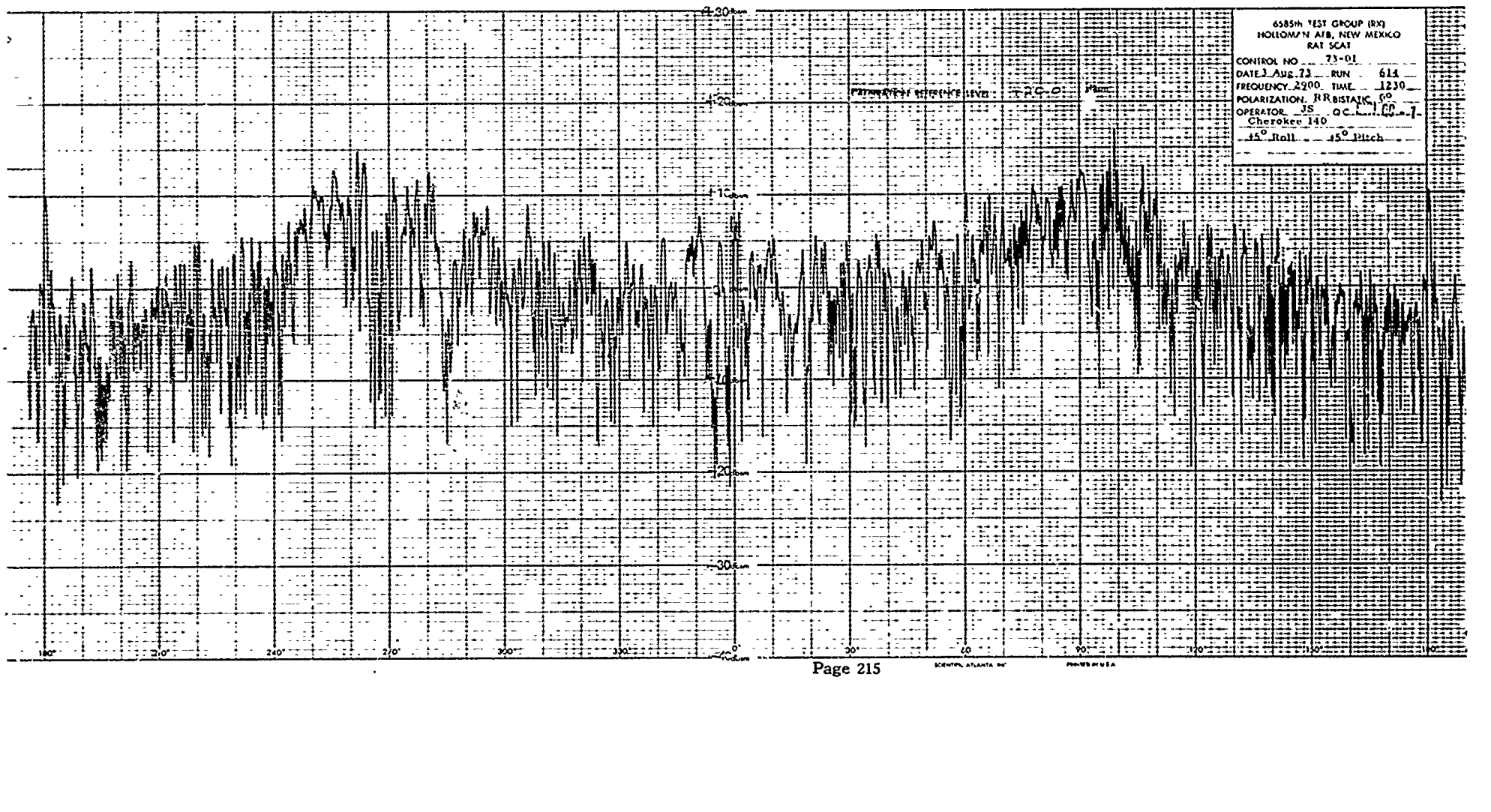

6585th TEST GROUP (RA)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-91
DATE 1 Aug 73 RUN 535
FREQUENCY 2700 TIME 1220
POLARIZATION RH BISTATIC 0°
OPERATOR JS QC DYN QC -.1
Cherokee 140
0° Roll, +5° Pitch
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°

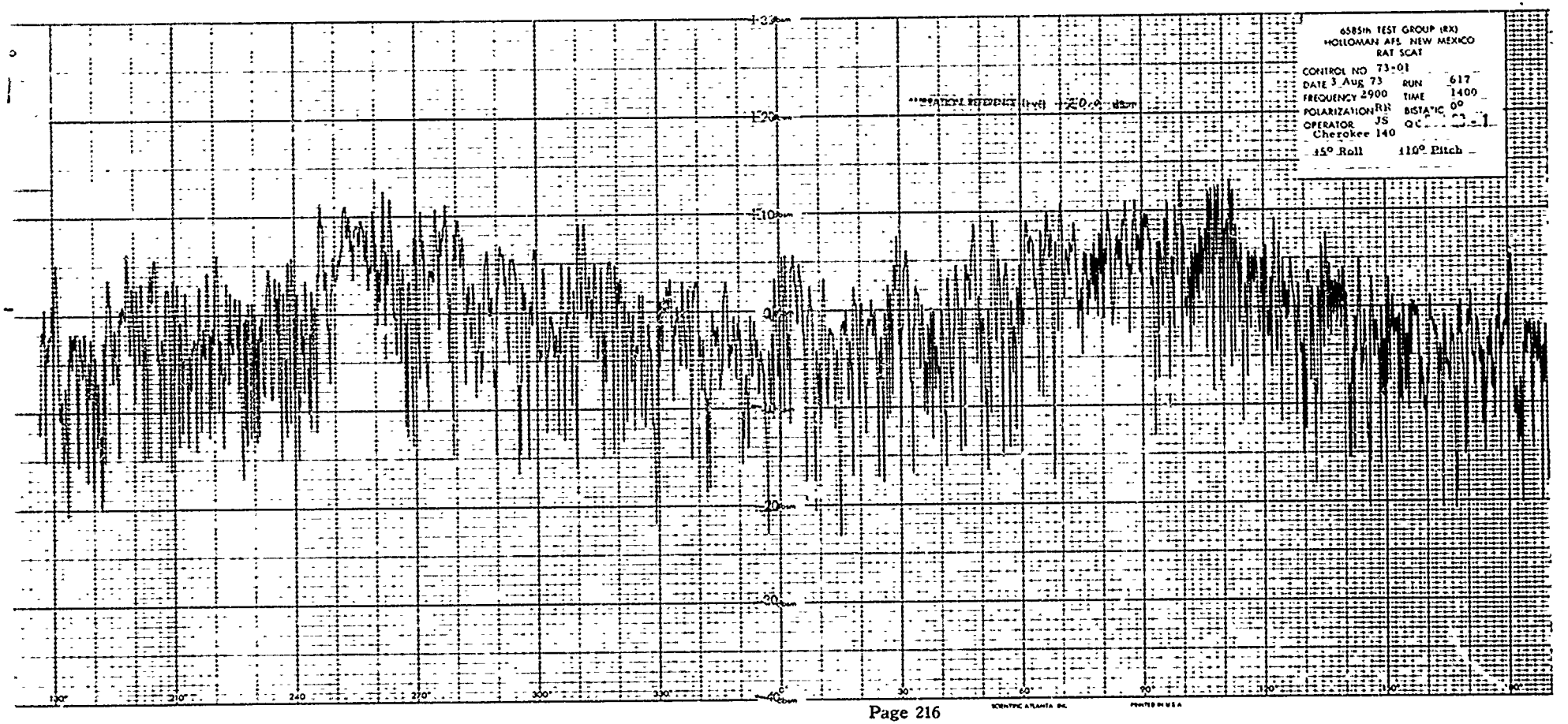

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
PAT SCAT
CONTROL NO 73-01
DATE 1 AUG 73 RUN 538
FREQUENCY 3900 TIME 1405
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
0° Roll, +10° Pitch
+30 dbsm
+20 dbsm
+10 dbsm
0
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240
270°
300°
330°
0 dbsm
30
60°
90°
120°
150°
180°

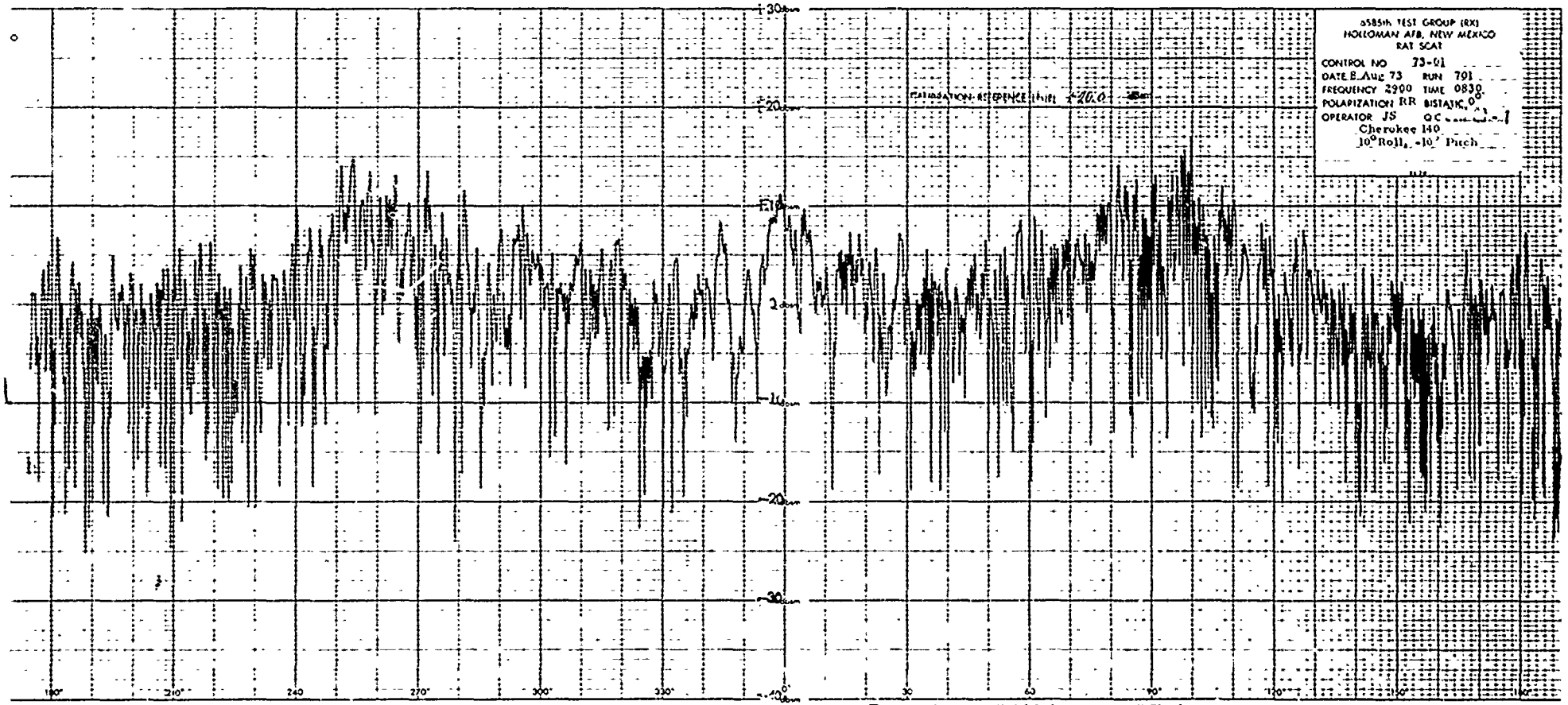

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 71-01
DATE 3 Aug 71 RUN 57y
FREQUENCY 2900 TIME 1430
POLARIZATION RR B STATIC 0°
OPERATOR JS QC Cm C3 - 1
Cherokee 140
0° Roll 10° Pitch
CALIBRATION REFERENCE LEVEL = -27 dBm
-30dBm
-20dBm
-10dBm
0dBm
10dBm
30dBm
180°
210°
240
270
300°
330°
0
30°
60°
90°
120°
150°
180°

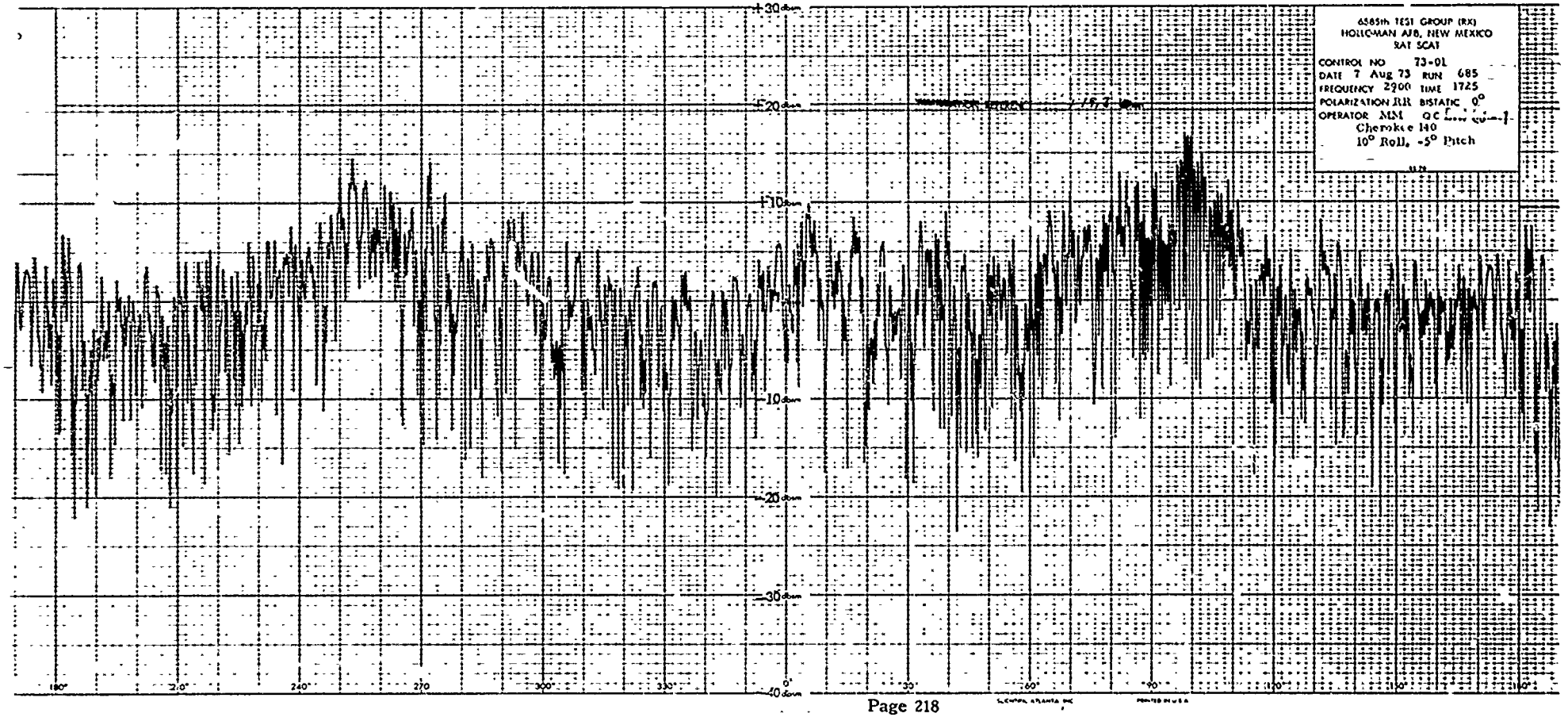

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 3 Aug 73 RUN 600
FREQUENCY 2900 TIME 0752
POLARIZATION HH BISTATIC 0°
OPERATOR JS QC
Cherokee 140
5° Roll +5° Pitch
+30dbsm
+10dbsm
0dbsm
-10dbsm
-20dbsm
-30dbsm
90°
180°
270°
360°

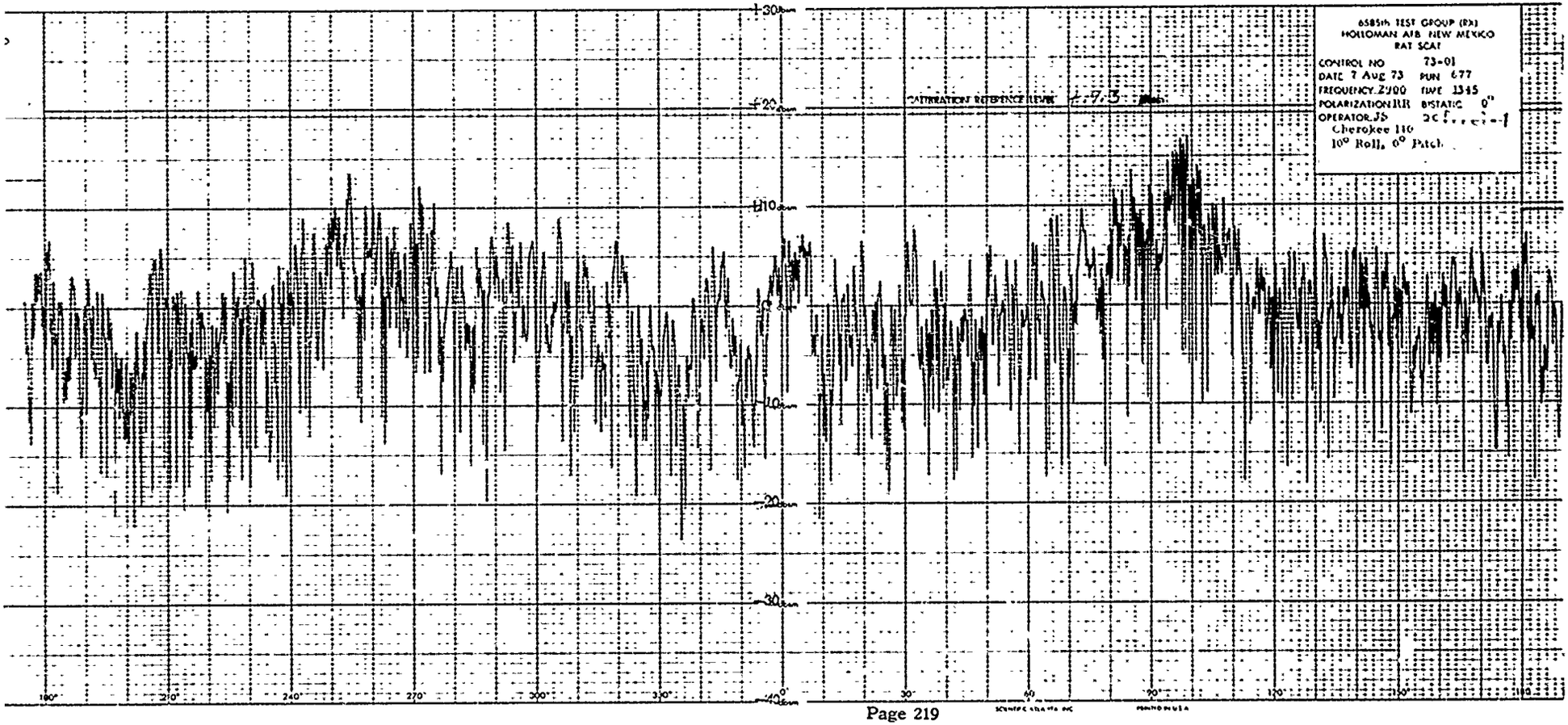

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73 PLN 603
FREQUENCY2900 MHz PWE 0025
POLARIZATION RR ESTATIC
OPERATOR JS QC
Cherokee 140
5° Roll 0° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240
270
300
330°
0
30
60
90
120°
150°

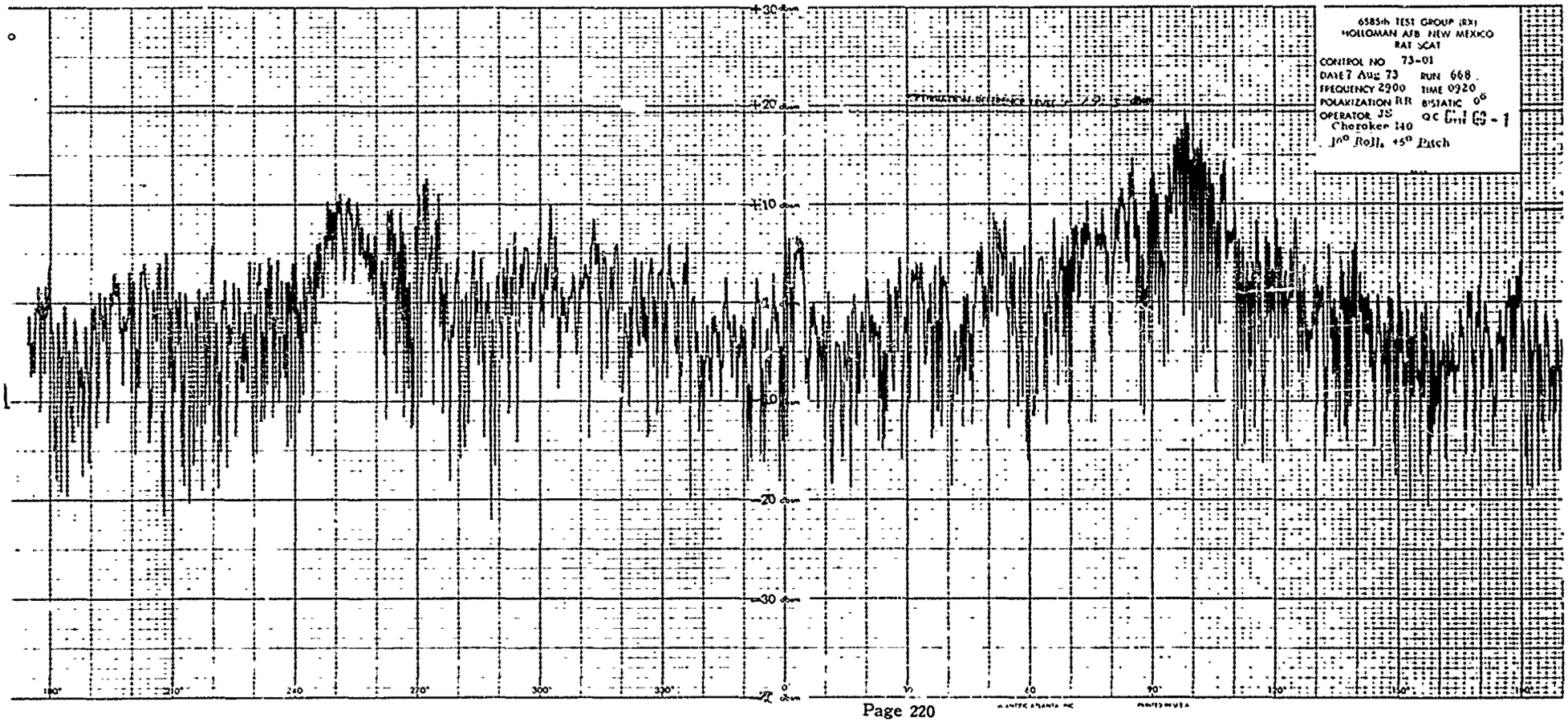

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73 RUN 614
FREQUENCY 2900 TIME 1230
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC
Cherokee 140
45° Roll 45° Pitch
PRIMARY REFERENCE LEVEL +20 dBm
-30dBm
-20dBm
-10dBm
0dBm
+10dBm
+20dBm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

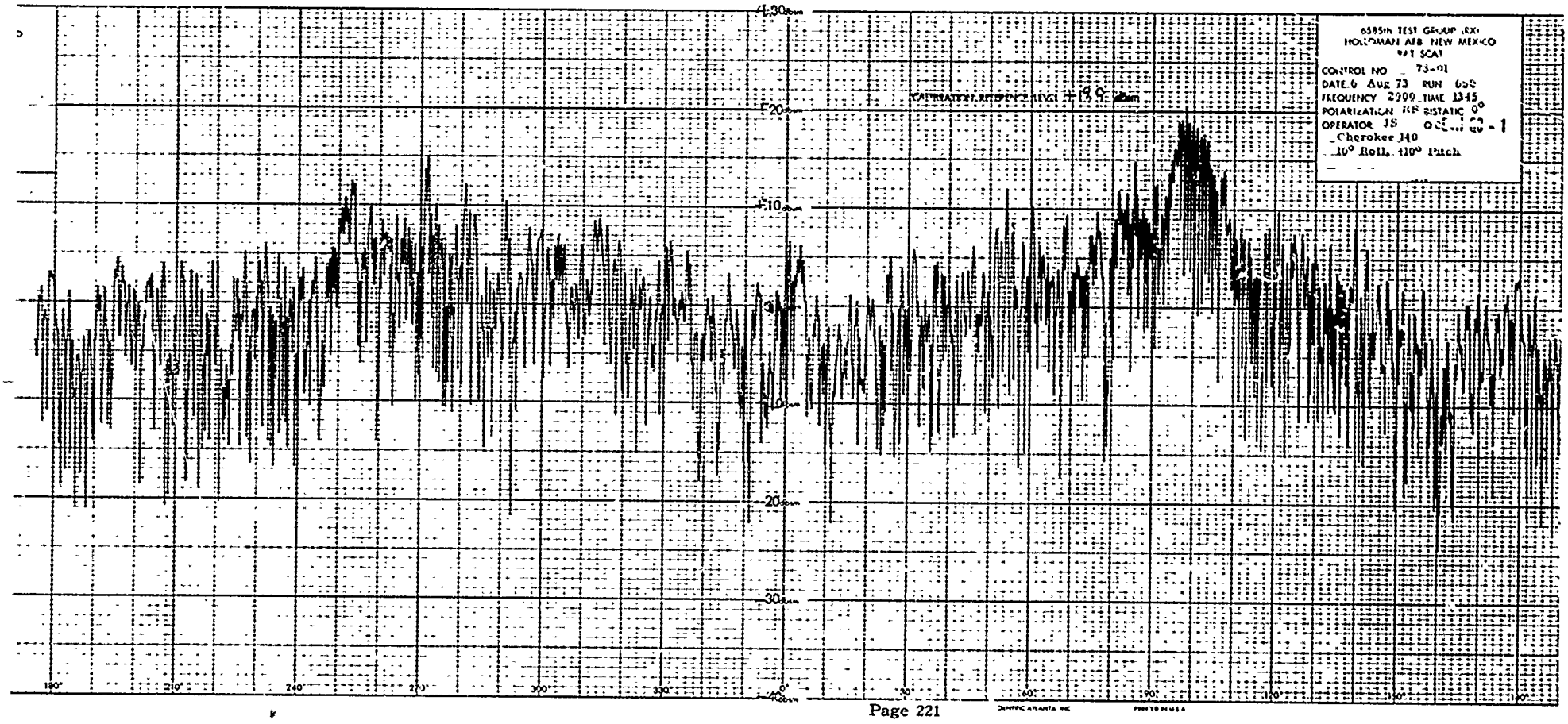

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 3 Aug 73
RUN 617
FREQUENCY 2900
TIME 1400
POLARIZATION RR
BISTATIC 0°
OPERATOR JS
Cherokee 140
45° Roll
110° Pitch
-10
-20
-30
-40
30°
60°
90°

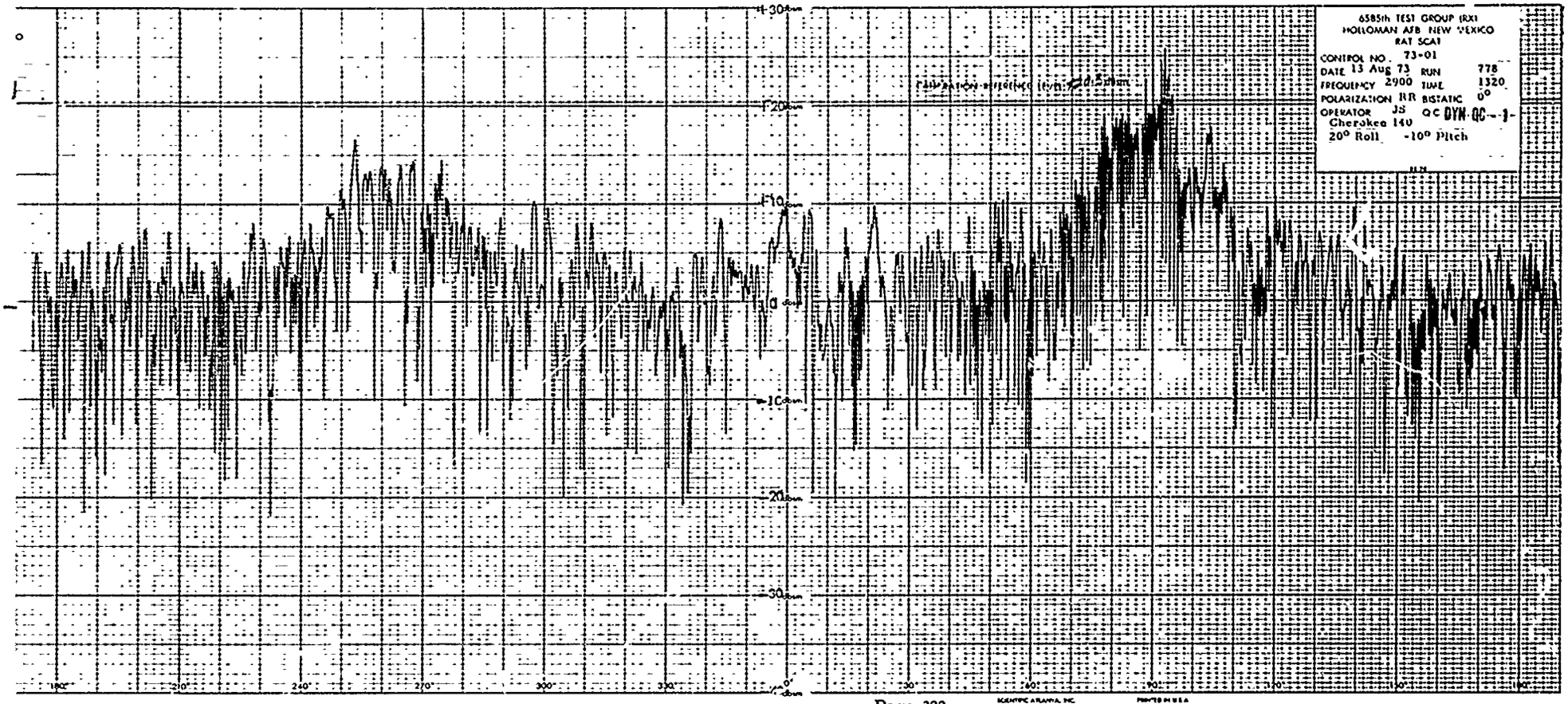

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-91
DATE 8 Aug 73 RUN 701
FREQUENCY 2900 TIME 0830
POLARIZATION RR BISTATIC 0°
OPERATOR JS
Cherokee 140
10° Roll, -10° Pitch
CALIBRATION REFERENCE (dBsm) +20.0
+30dBsm
+20dBsm
+10dBsm
2dBsm
-10dBsm
-20dBsm
-30dBsm
180°
210°
240
270°
300°
330°
-10°
30
60
90°
120°

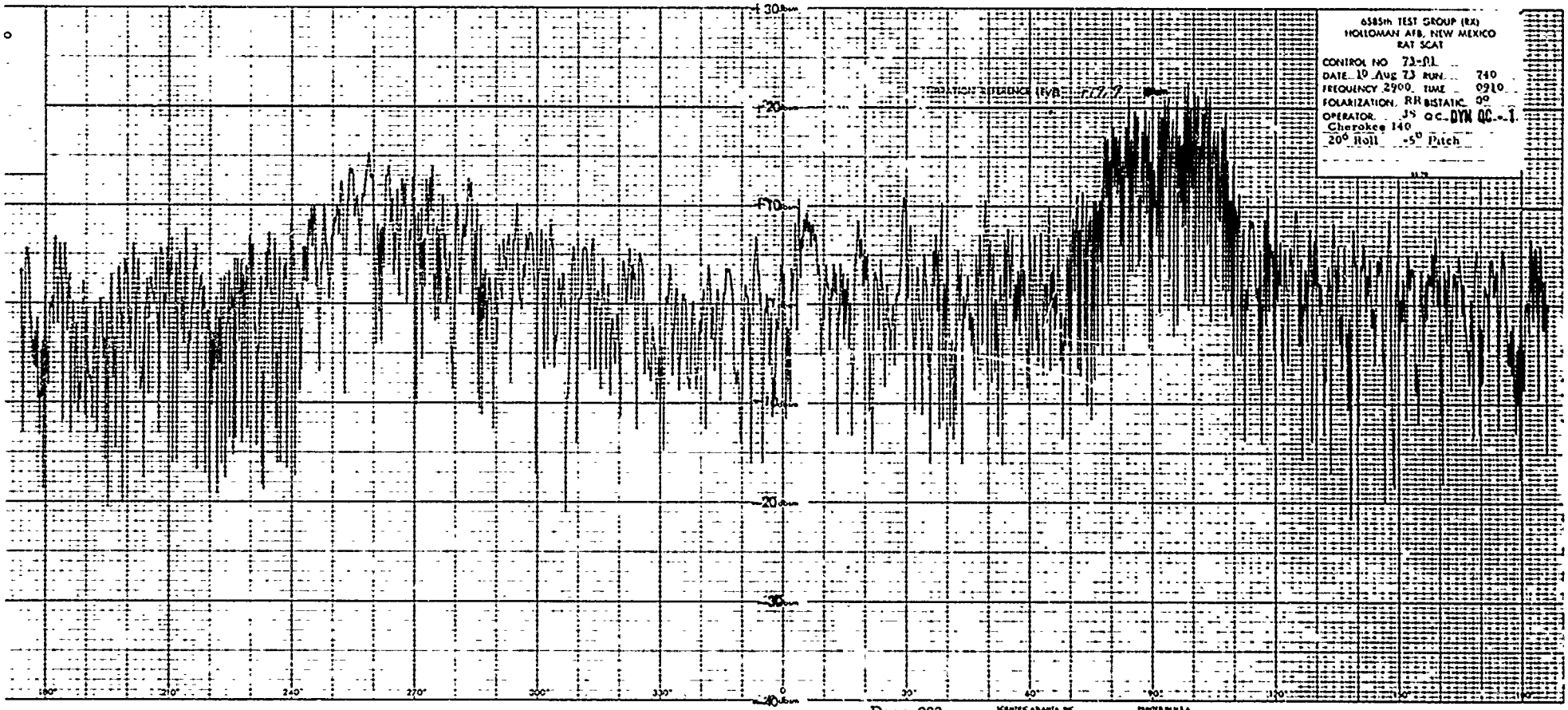

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 685
FREQUENCY 2900 TIME 1725
POLARIZATION RR BISTATIC 0°
OPERATOR MM QC
Cherokee 140
10° Roll, -5° Pitch
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
-40 dBsm
180°
210°
240°
270
300°
330°
0°
30°
60°
90°
120°
150°
180°

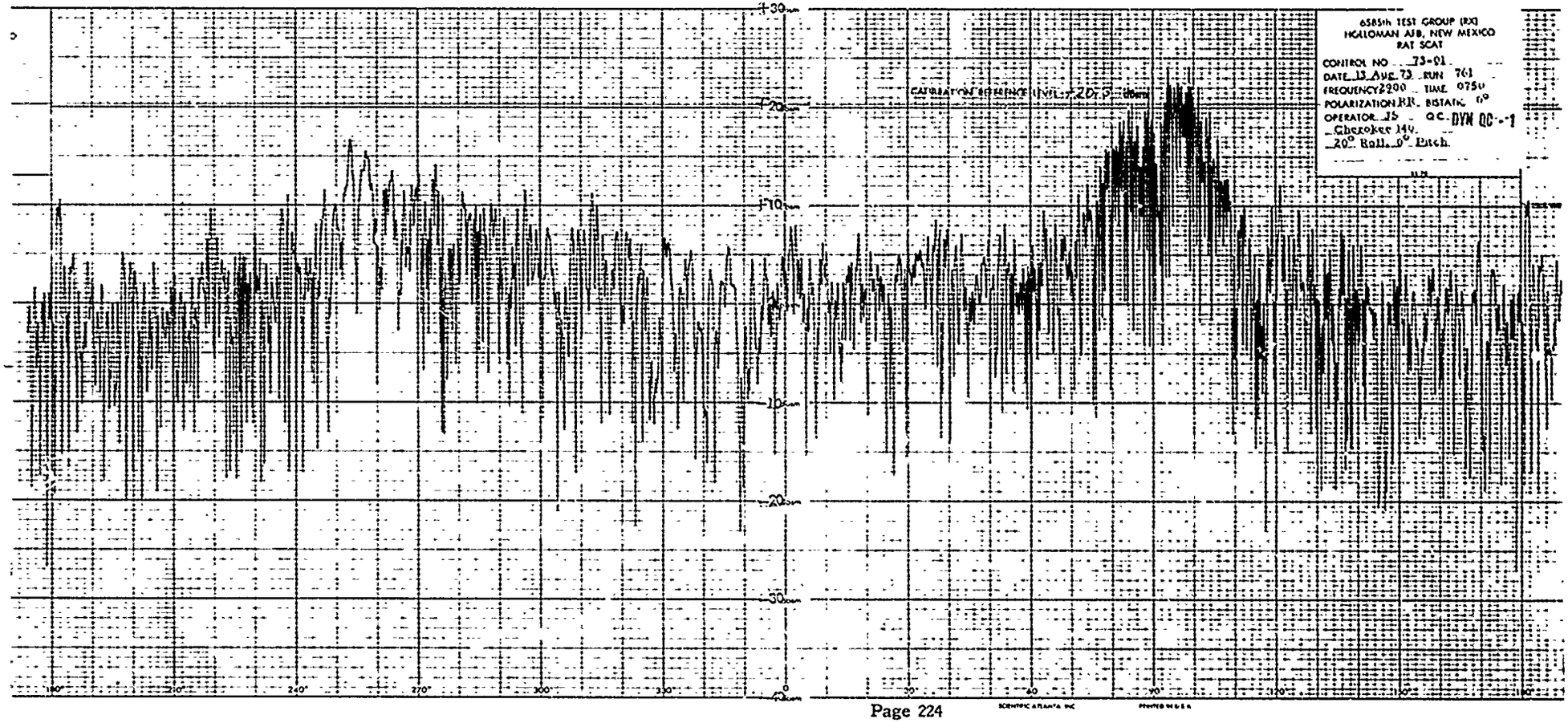

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 677
FREQUENCY 2400 TIME 1345
POLARIZATION RR BISTATIC 0°
OPERATOR JS
Cherokee 110
10° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL +7.5 dBsm
+30dBsm
+20dBsm
+10dBsm
0dBsm
-10dBsm
-20dBsm
-30dBsm
-40dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

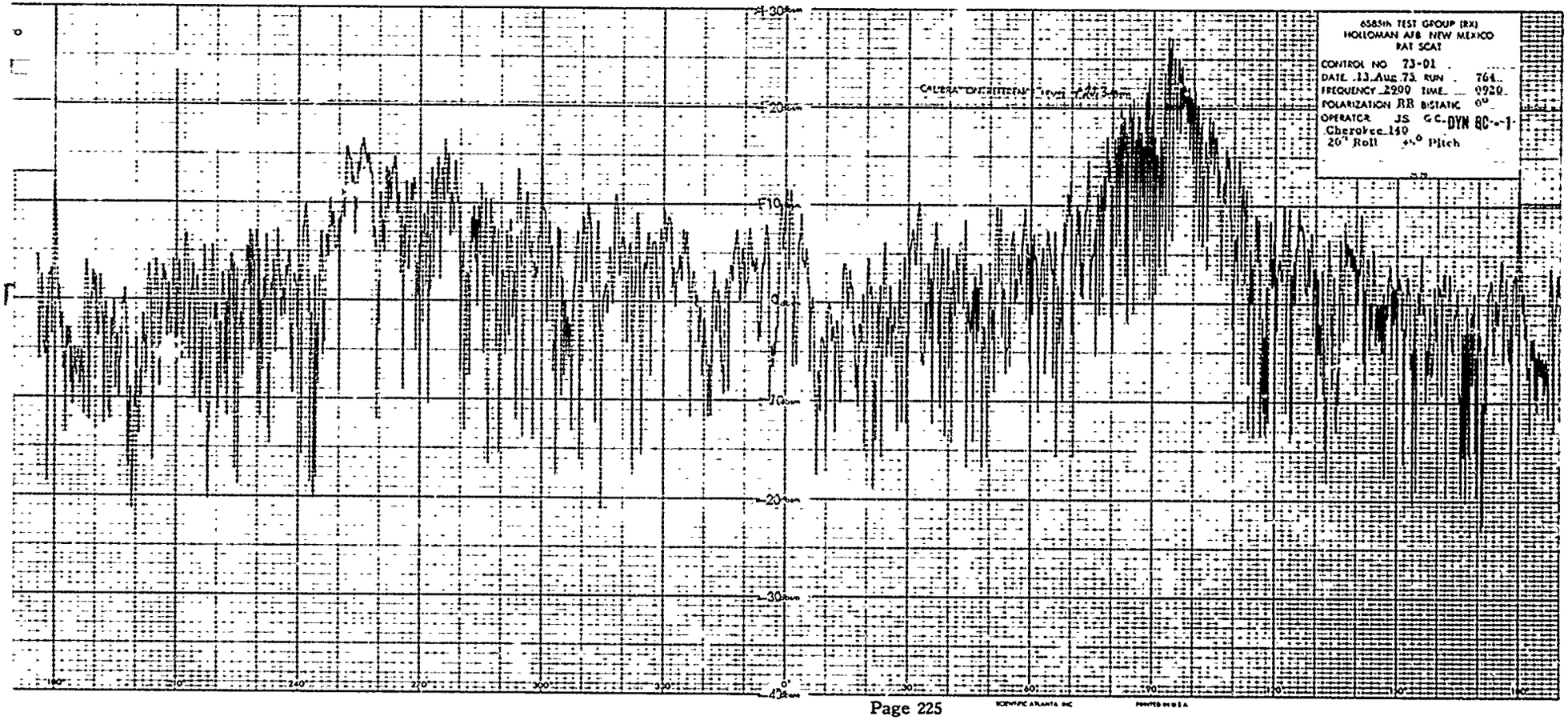

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 7 Aug 73 RUN 668
FREQUENCY 2900 TIME 0920
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC Cmt GS - 1
Cherokee 140
10° Roll, +5° Pitch
+30 dbm
+20 dbm
+10 dbm
0 dbm
-10 dbm
-20 dbm
-30 dbm
180°
210°
240
270°
300°
330°
0°
30
60
90°
120°
150°

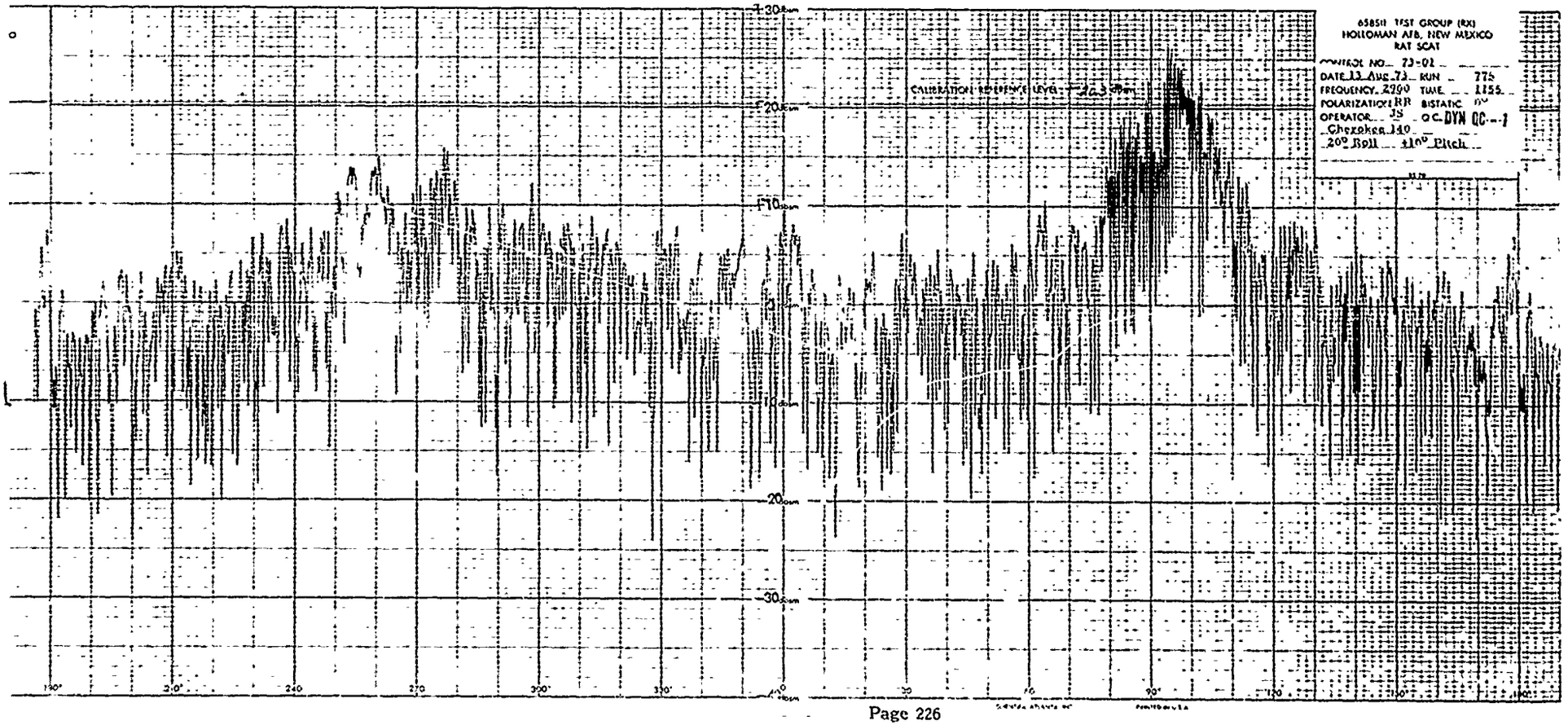

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
YF-17 SCAT
CONTROL NO 73-01
DATE 6 Aug 73 RUN 006
FREQUENCY 2000 TIME 1345
POLARIZATION HH BISTATIC 0°
OPERATOR JS
Cherokee 140
10° Roll, 110° Pitch
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

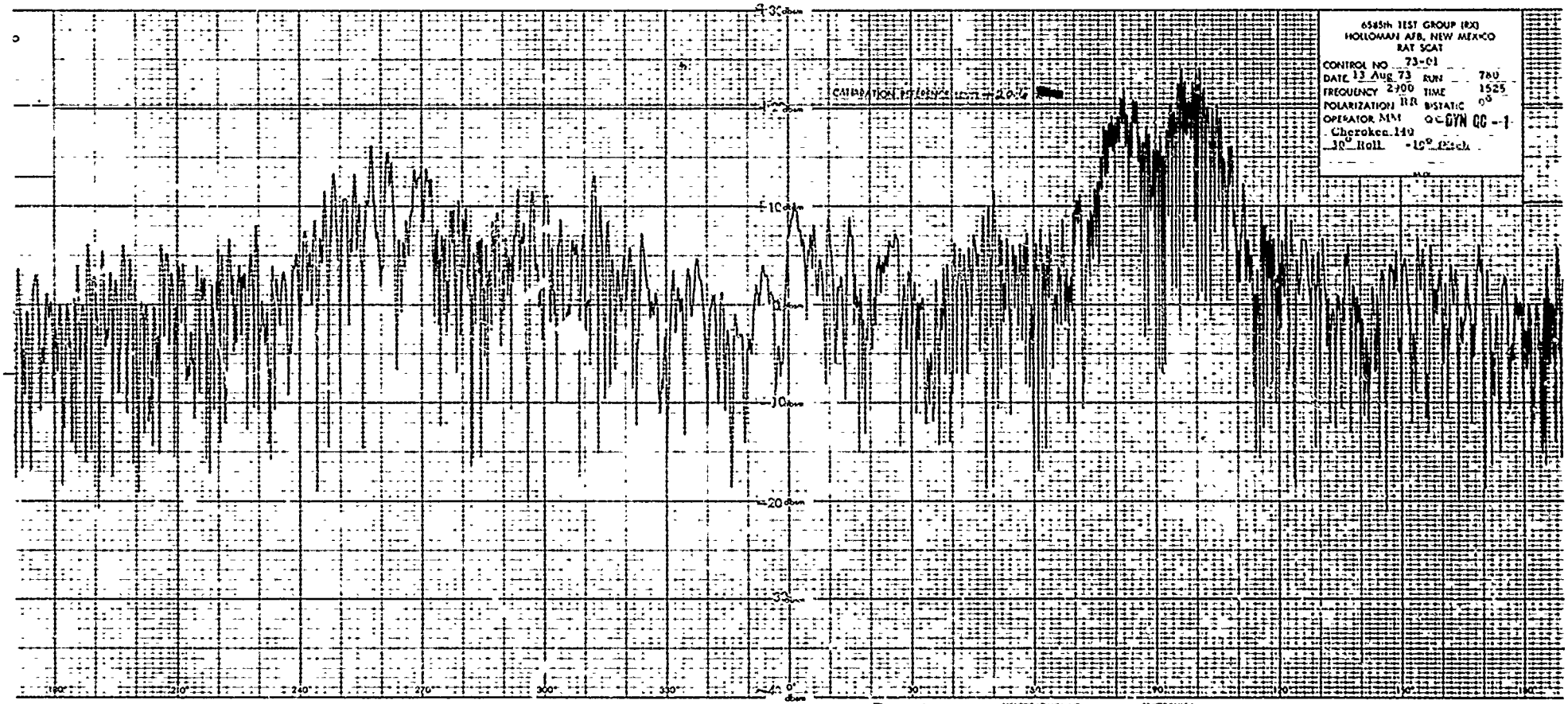

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 13 Aug 73 RUN 778
FREQUENCY 2900 TIME 1320
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1-
Cherokee 140
20° Roll -10° Pitch
+30dbsm
+20dbsm
+10dbsm
0 dbsm
-10dbsm
-20dbsm
-30dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

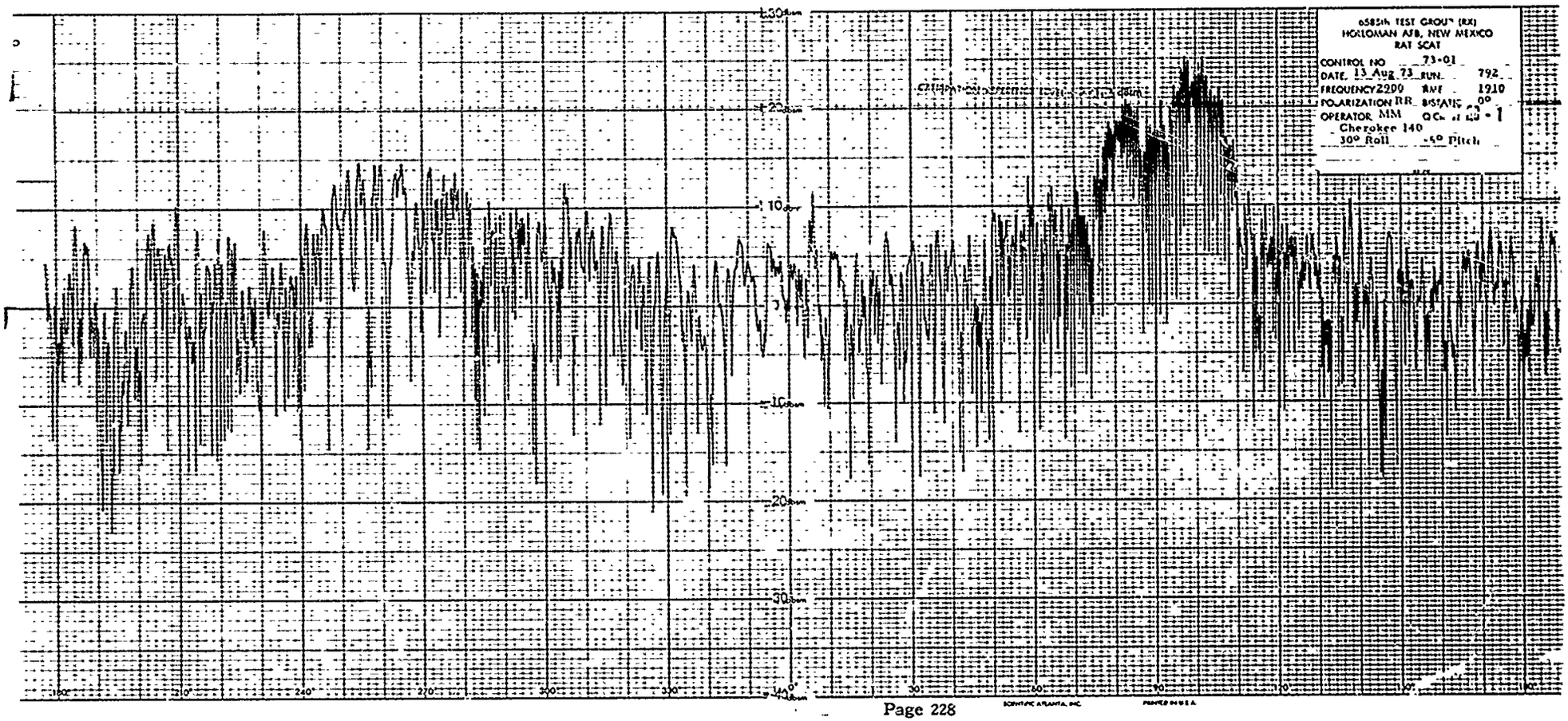

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-81
DATE 10 Aug 73 RUN 740
FREQUENCY 2900 TIME 0910
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
20° Roll -5° Pitch
+30dbsm
+20
+10
0
-10
-20
-30dbsm
180°
210°
240°
270°
300°
330°
0
30°
60°
90°
120°

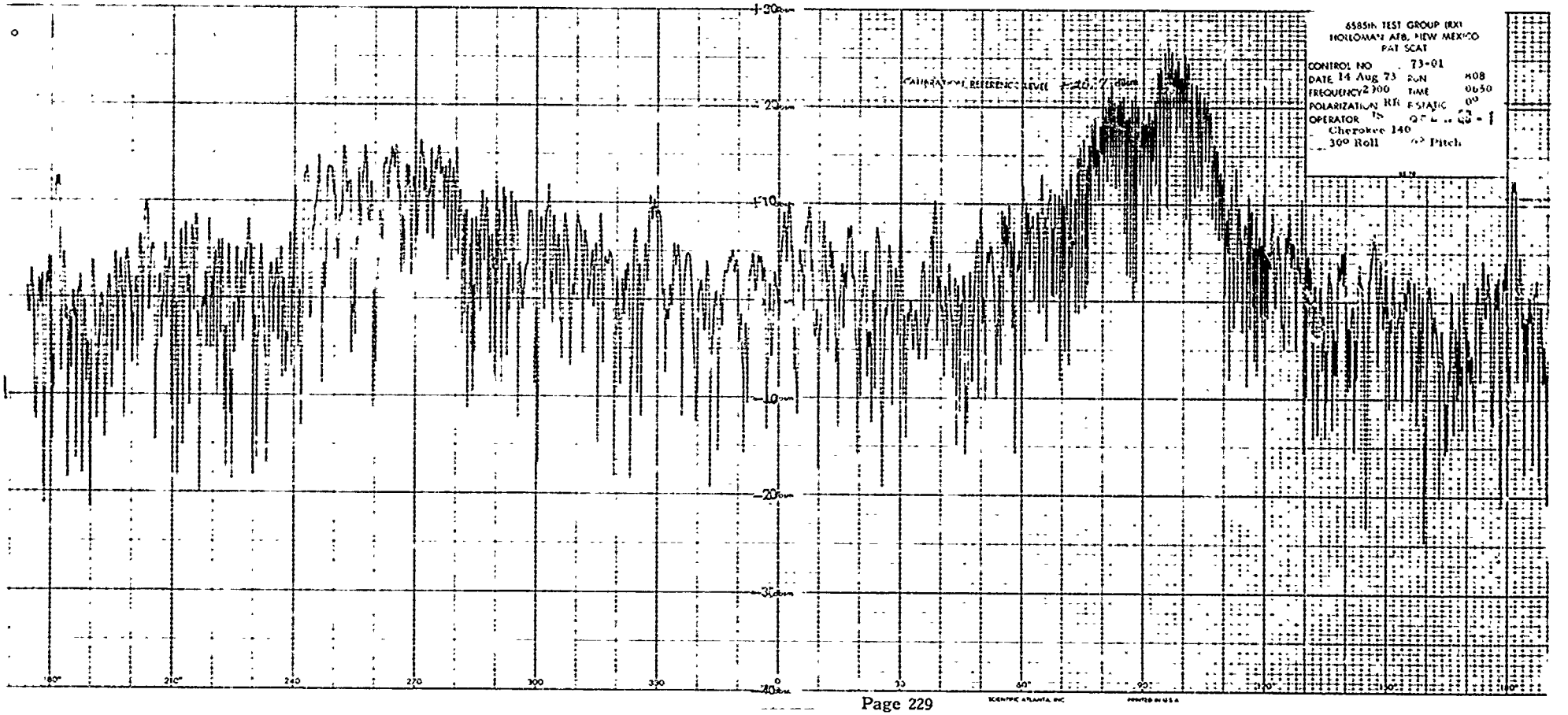

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 AUG 73 RUN 761
FREQUENCY 2900 TIME 0750
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC-DYN QC-1
Cherokee 140
20° Roll 0° Pitch
CALIBRATION REFERENCE LEVEL +20.5 dBsm
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

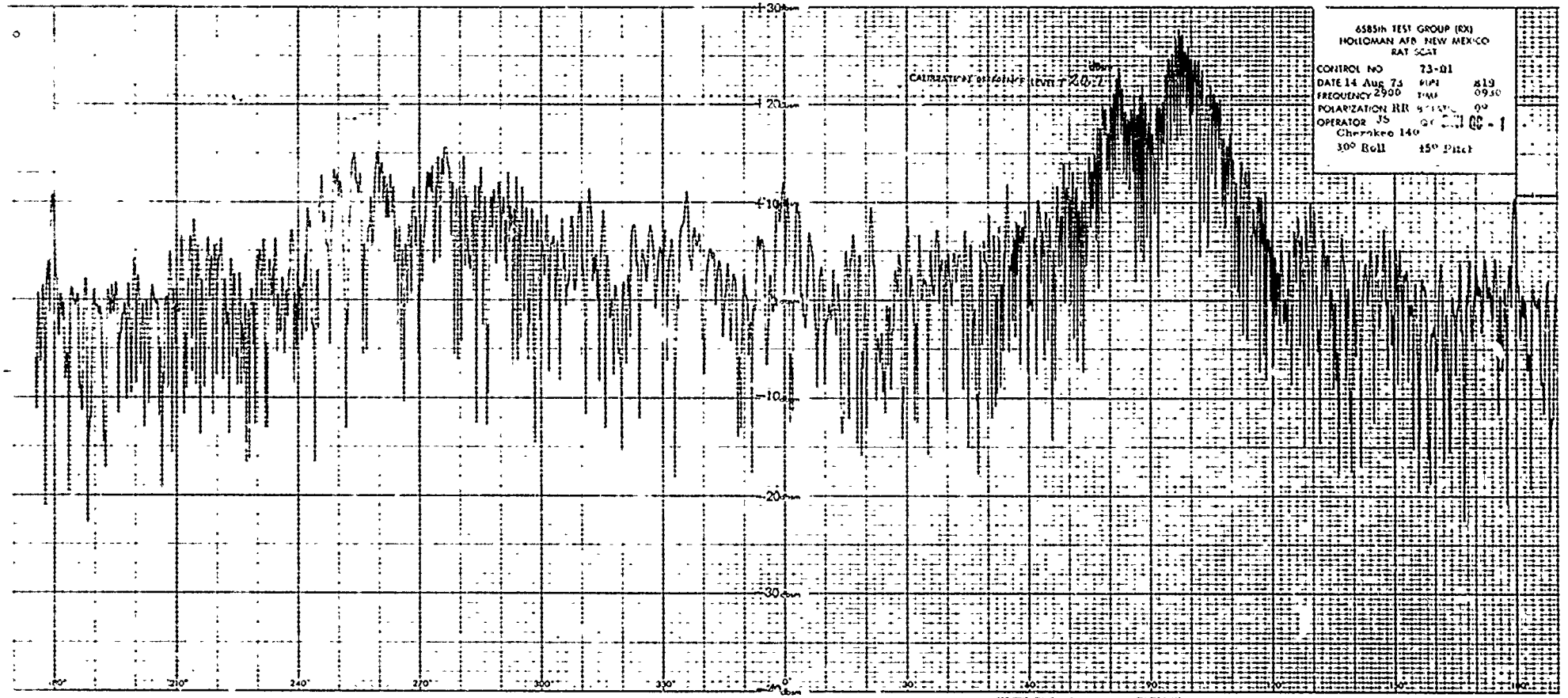

6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 764
FREQUENCY 2200 TIME 0920
POLARIZATION RR BISTATIC 0°
OPERATOR JS GC-DYN 80-1
Cherokee 140
20° Roll 4.0° Pitch
-30dbsm
-20dbsm
-10dbsm
0dbsm
10dbsm
20dbsm
30dbsm
40dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°

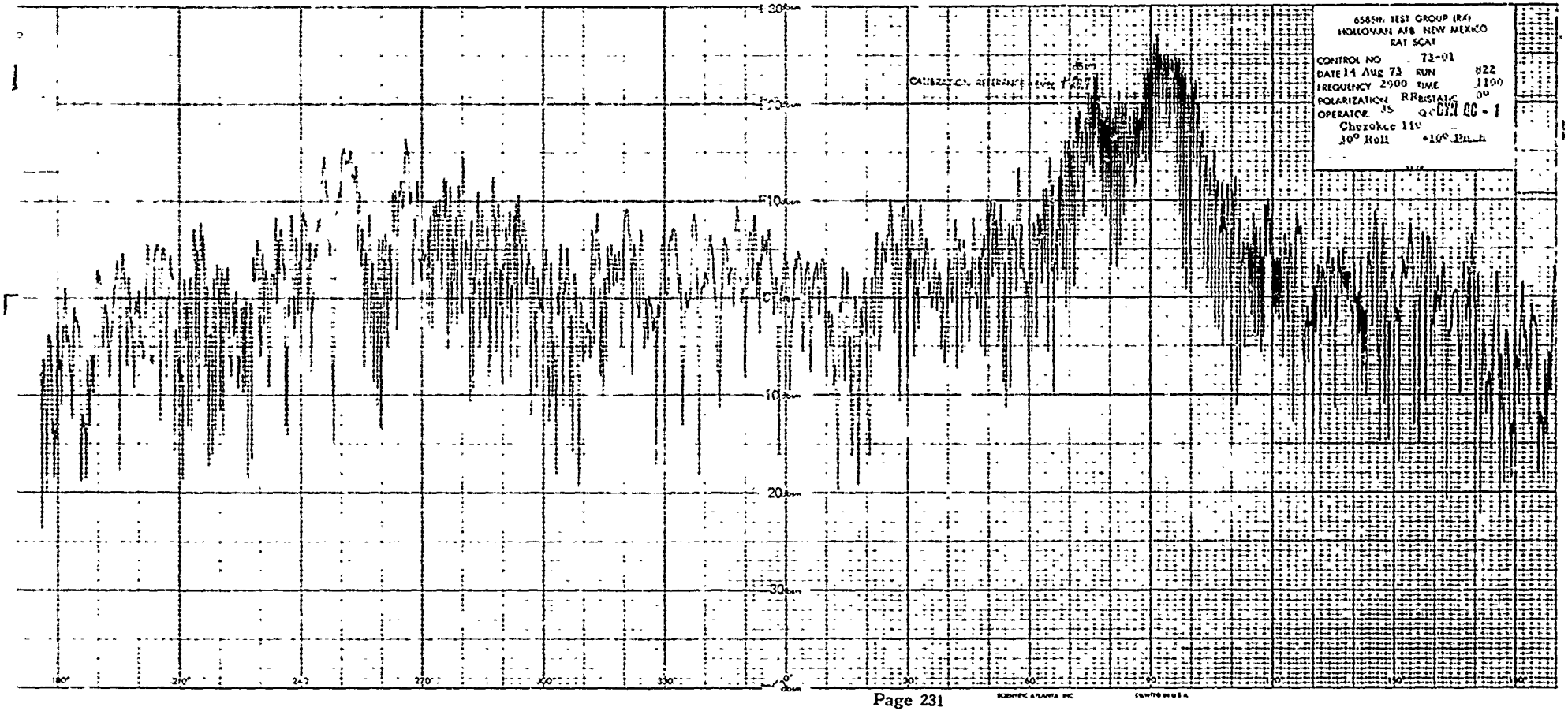

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-02
DATE 13 Aug 73 RUN 775
FREQUENCY 2290 TIME 1155
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1
Cherokee 140
20° Roll ±10° Pitch
CALIBRATION REFERENCE LEVEL -20.3 dBsm
-10dBsm
-20dBsm
-30dBsm
240
270
300
330
10
30
50
70
90
110
130
150
170

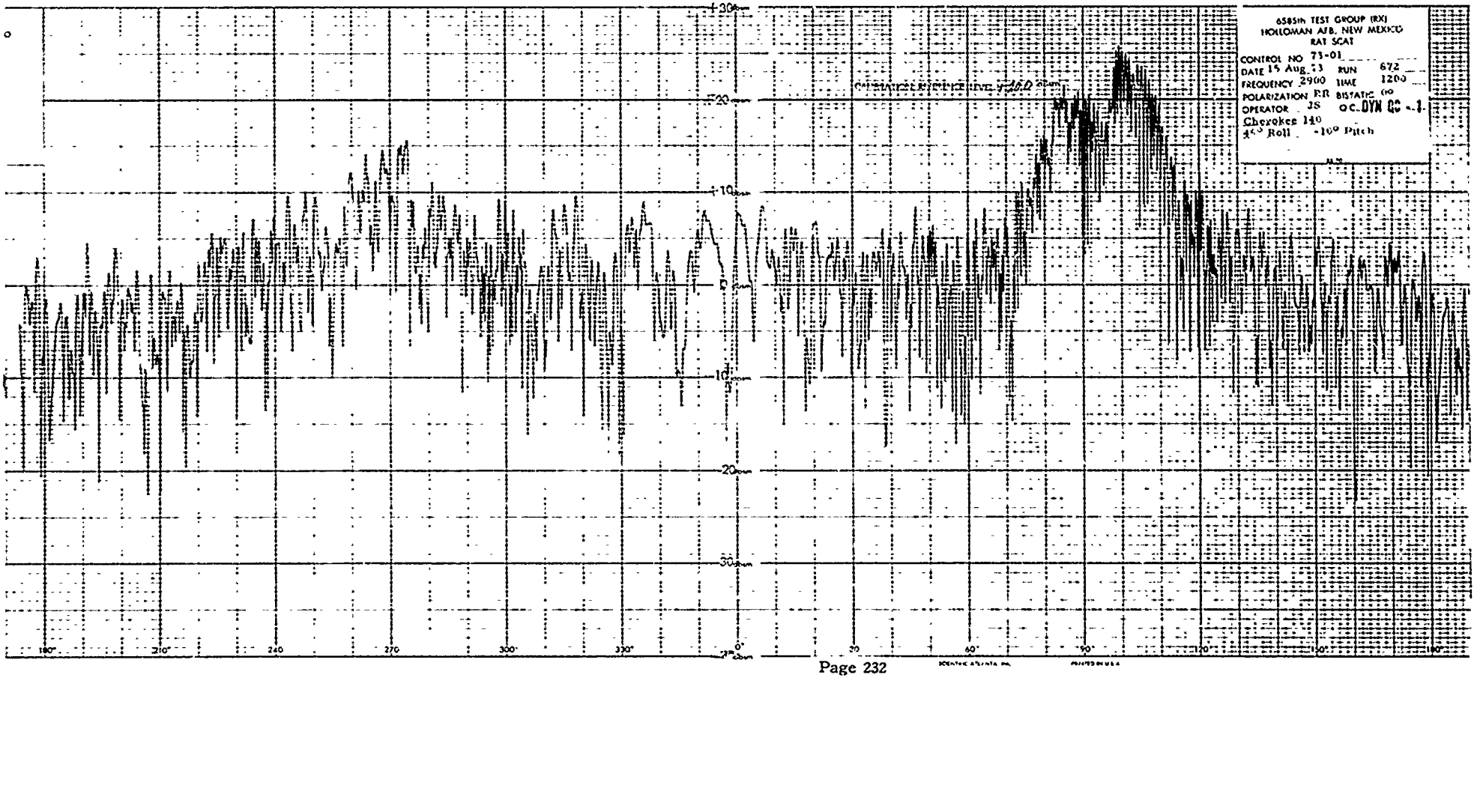

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 780
FREQUENCY 2900 TIME 1525
POLARIZATION RR BISTATIC 0°
OPERATOR MM QC GYN QC -1
Cherokee 140
30° Roll -10° Pitch
-30 dbsm
-10 dbsm
10 dbsm
30 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
90°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 13 Aug 73 RUN 792
FREQUENCY 2200 RNF 1910
POLARIZATION RR BISTATIC 0°
OPERATOR MM
Cherokee 140
30° Roll -5° Pitch
+30dBsm
+20dBsm
+10dBsm
0dBsm
-10dBsm
-20dBsm
-30dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
PAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73
RUN 408
FREQUENCY 2300
TIME 0650
POLARIZATION RR
P STATIC 09°
OPERATOR TS
Cherokee 140
30° Roll
0° Pitch
+30
+20
+10
0
-10
-20
-30
-40
180°
210°
240
270
300
330
0
30
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73
FREQUENCY 2900
POLARIZATION RR
OPERATOR JS
Cherokee 140
30° Roll
45° Pitch
-30
-20
-10
0
+10
+20
+30
210°
240°
270°
300°
330°
0°
30°
60°
90°


6585th TEST GROUP (RA)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 822
FREQUENCY 2900 TIME 1100
POLARIZATION RR BISTATIC 0°
OPERATOR JS
Cherokee 11V
30° Roll +10° Pitch
CAL 20 dB - 1
+20dBm
+10dBm
0dBm
-10dBm
-20dBm
-30dBm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°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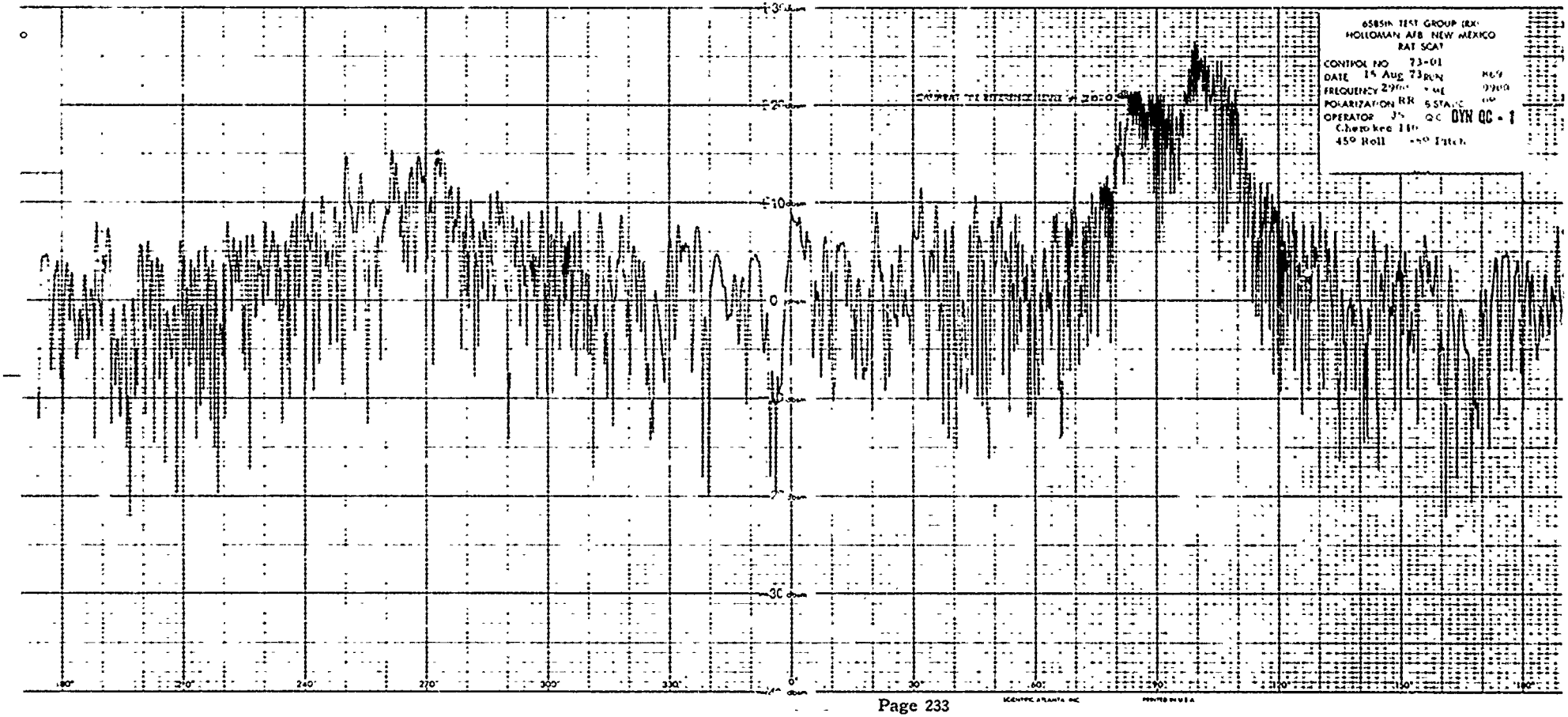
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN 672
FREQUENCY 2900 TIME 1200
POLARIZATION RR BISTATIC 0°
OPERATOR JS OC DYN CC -1
Cherokee 140
45° Roll -10° Pitch
30
20
10
0
10
20
30
180°
210°
240
270
300°
330°
0°
30
60°
90°
120°
150°
180°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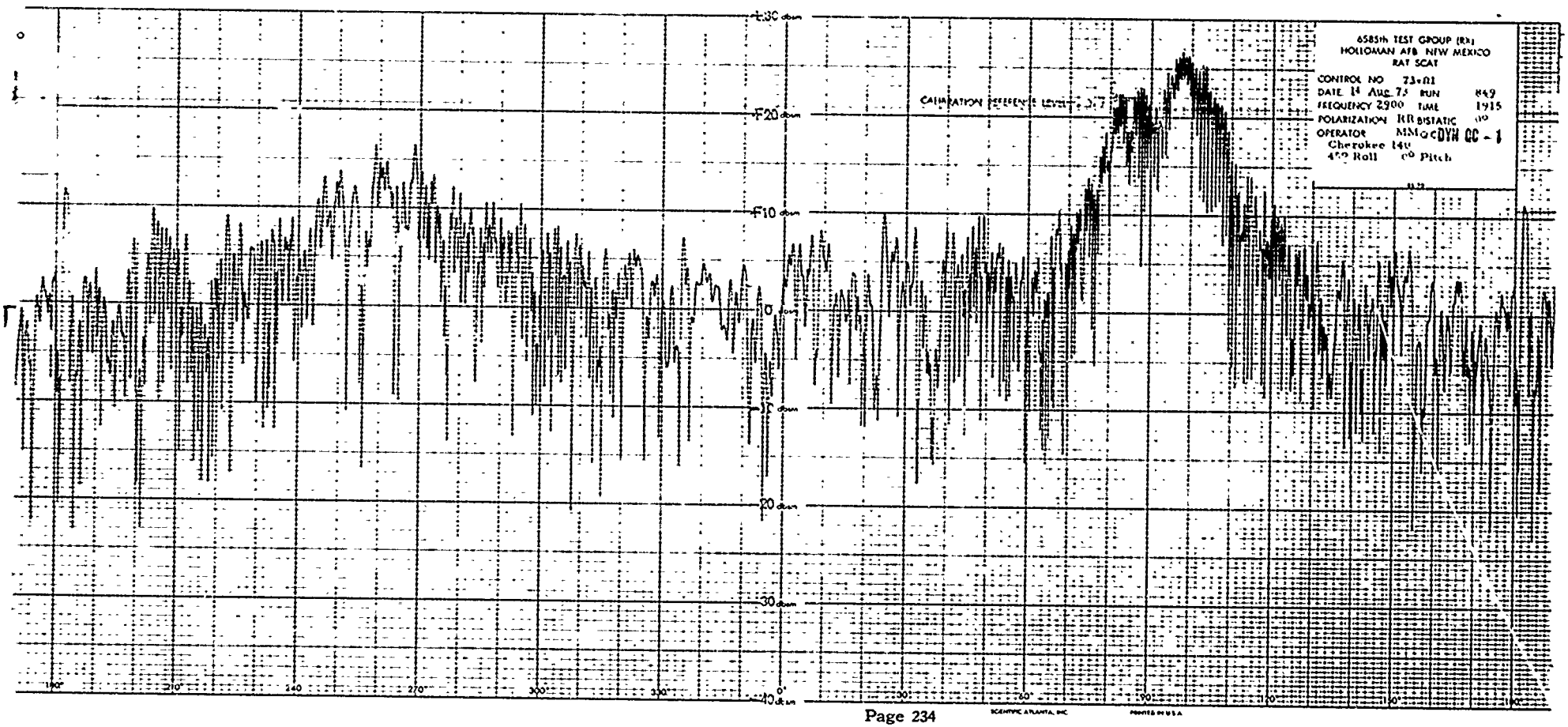
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 15 Aug 73 RUN
FREQUENCY
POLARIZATION RR
OPERATOR
Cherokee
45° Roll
QC DYN QC - 1
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°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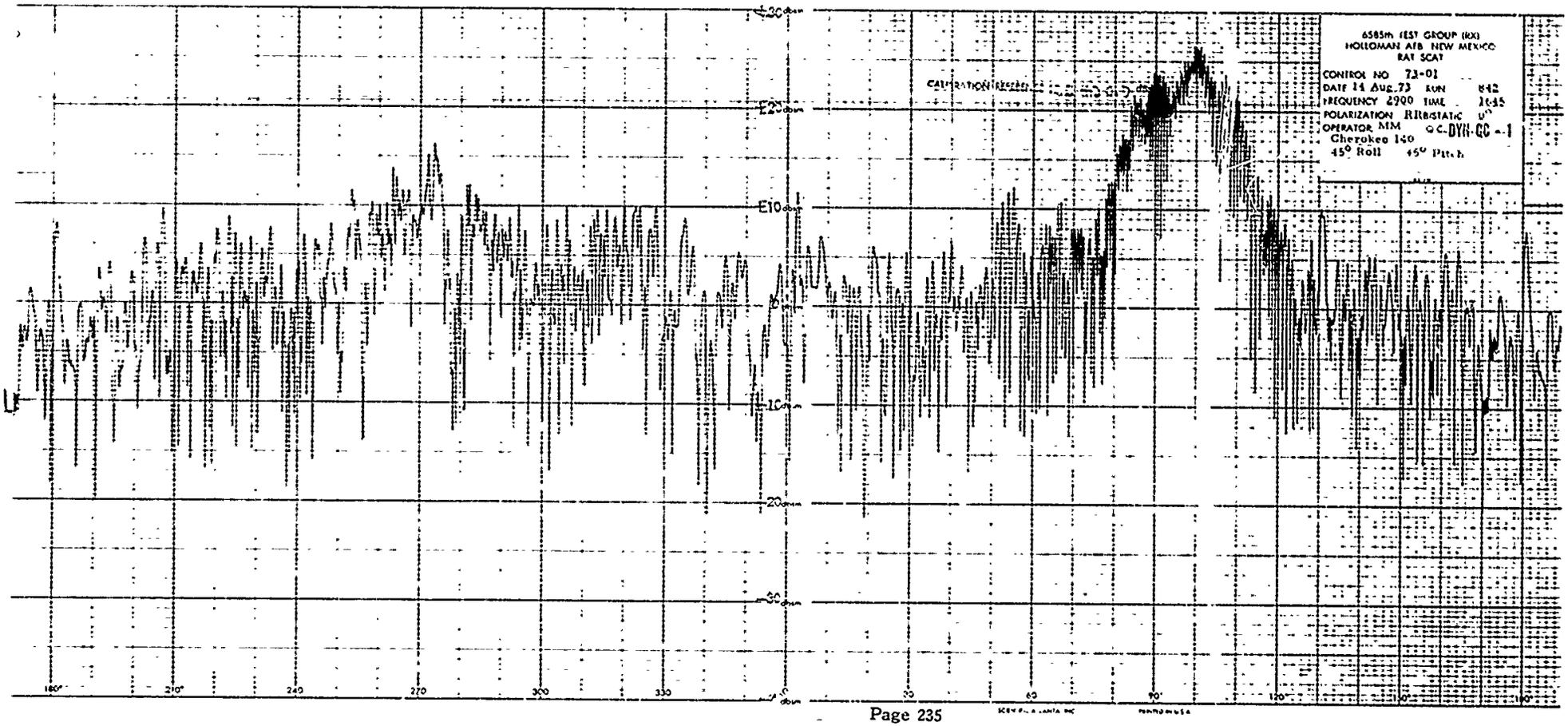
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 849
FREQUENCY 2900 TIME 1915
POLARIZATION RR BISTATIC 00
OPERATOR MM & CDVH QC - 1
Cherokee 14u
4.2 Roll 0° Pitch
CALIBRATION REFERENCE LEVEL -3.7
-30 dBsm
-20
-10
0
+10
+20
+30
180°
210°
240
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°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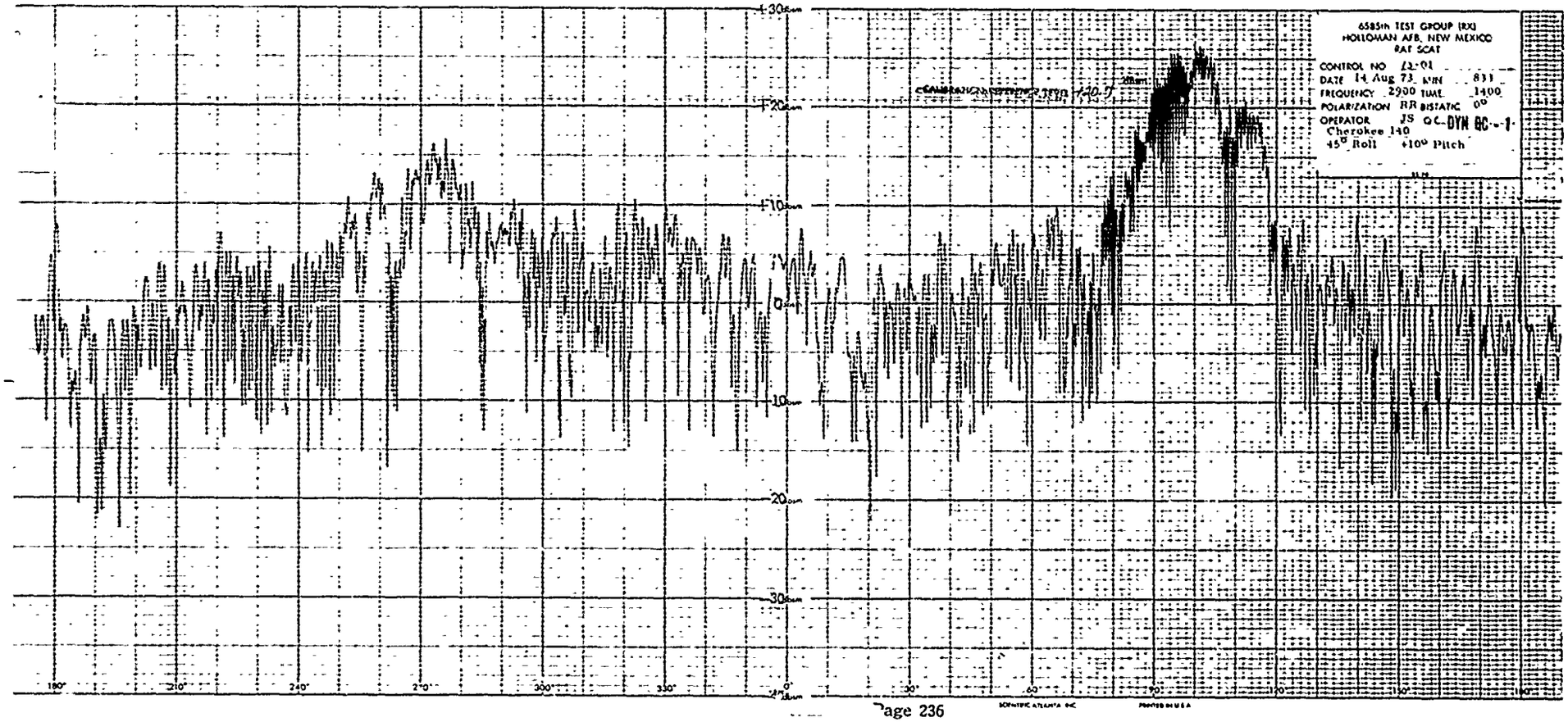
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 RUN 842
FREQUENCY 2900 TIME 21:45
POLARIZATION RR STATIC 0°
OPERATOR MM QC-DYN-QC-1
Cherokee 140
45° Roll 45° Pitch
CALIBRATION
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240
270
300
330
0°
30
60
90°
120
150
180°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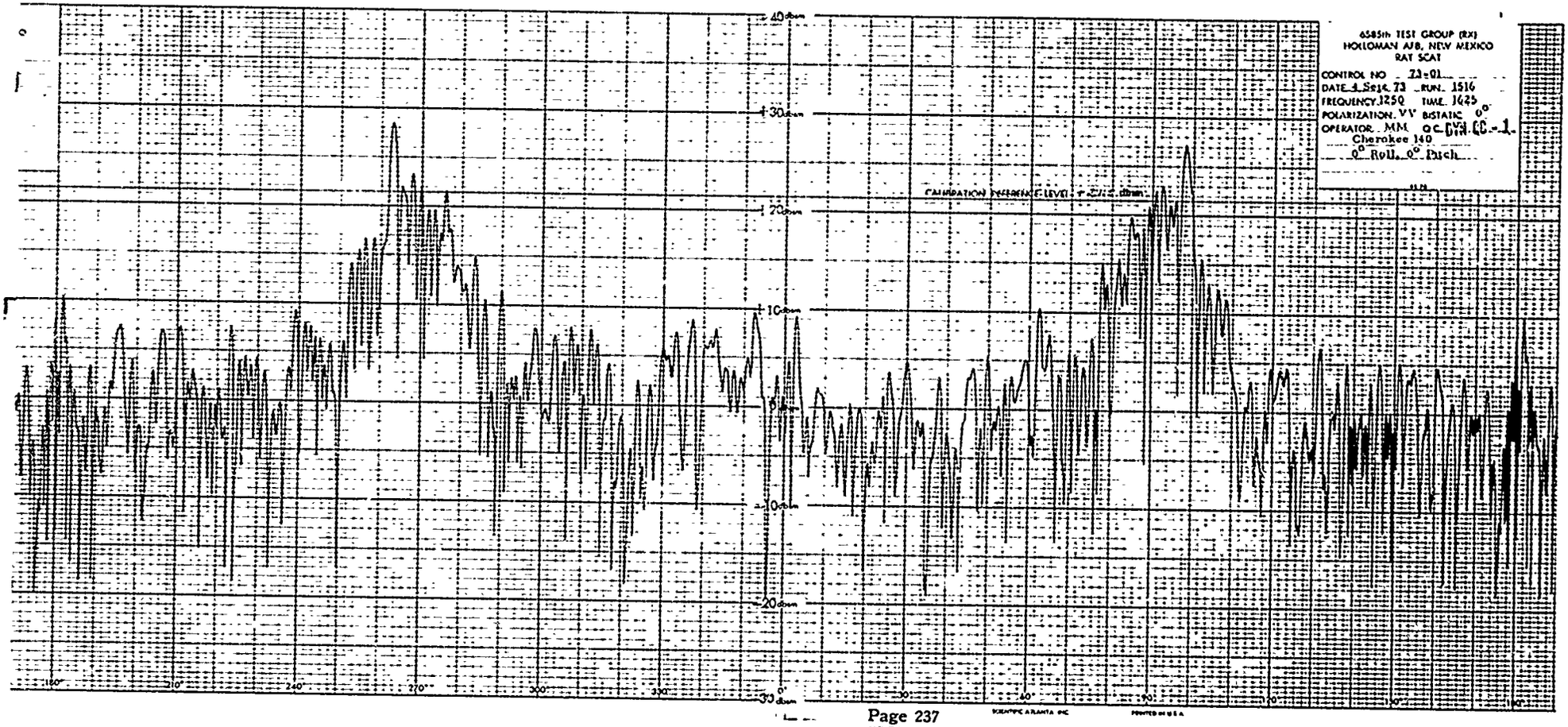
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 14 Aug 73 MIN 831
FREQUENCY 2900 TIME 1400
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC-DYN QC-1
Cherokee 140
45° Roll +10° Pitch
CALIBRATION INTERNAL TEST 140.7
+30dBsm
+20dBsm
+10dBsm
0dBsm
-10dBsm
-20dBsm
-30dBsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 4 Sept 73 RUN 1516
FREQUENCY 1250 TIME 1625
POLARIZATION VV BISTATIC 0°
OPERATOR MM QC DVM CC-1
Cherokee 140
0° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL
40 dBsm
30 dBsm
20 dBsm
10 dBsm
0 dBsm
-10 dBsm
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-30 dBsm
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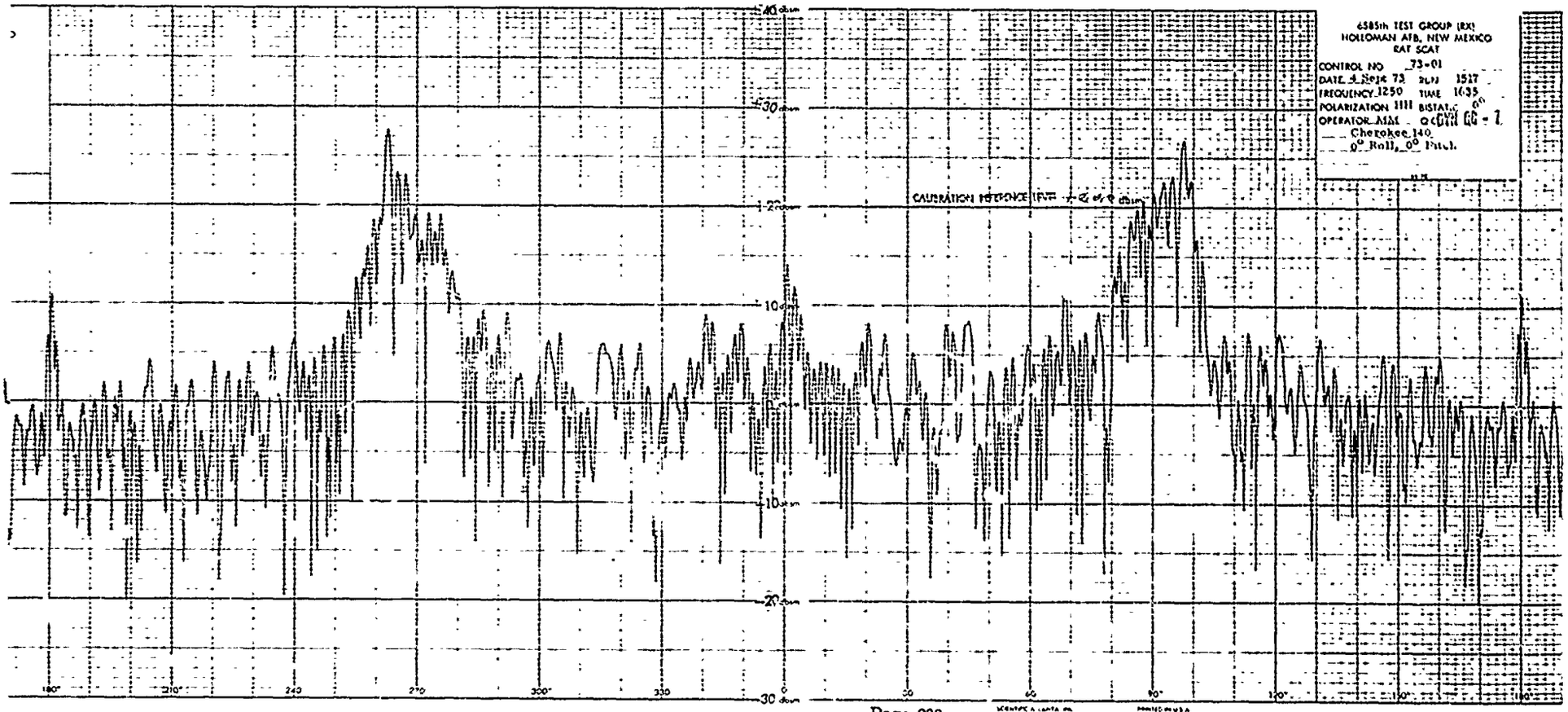
330°
0°
30°
60°
90°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 5 Sep 73 RUN 1527
FREQUENCY 1250 TIME 1635
POLARIZATION 1111 BISTATIC 0°
OPERATOR MSgt O'Connor
Cherokee 140
0° Roll, 0° Pitch.
CALIBRATION REFERENCE LEVEL
-40 dbsm
-30 dbsm
-20 dbsm
-10 dbsm
0 dbsm
10 dbsm
30 dbsm
180°
210°
240
270
300°
330
0
30
60
90°
120°
150°
180°

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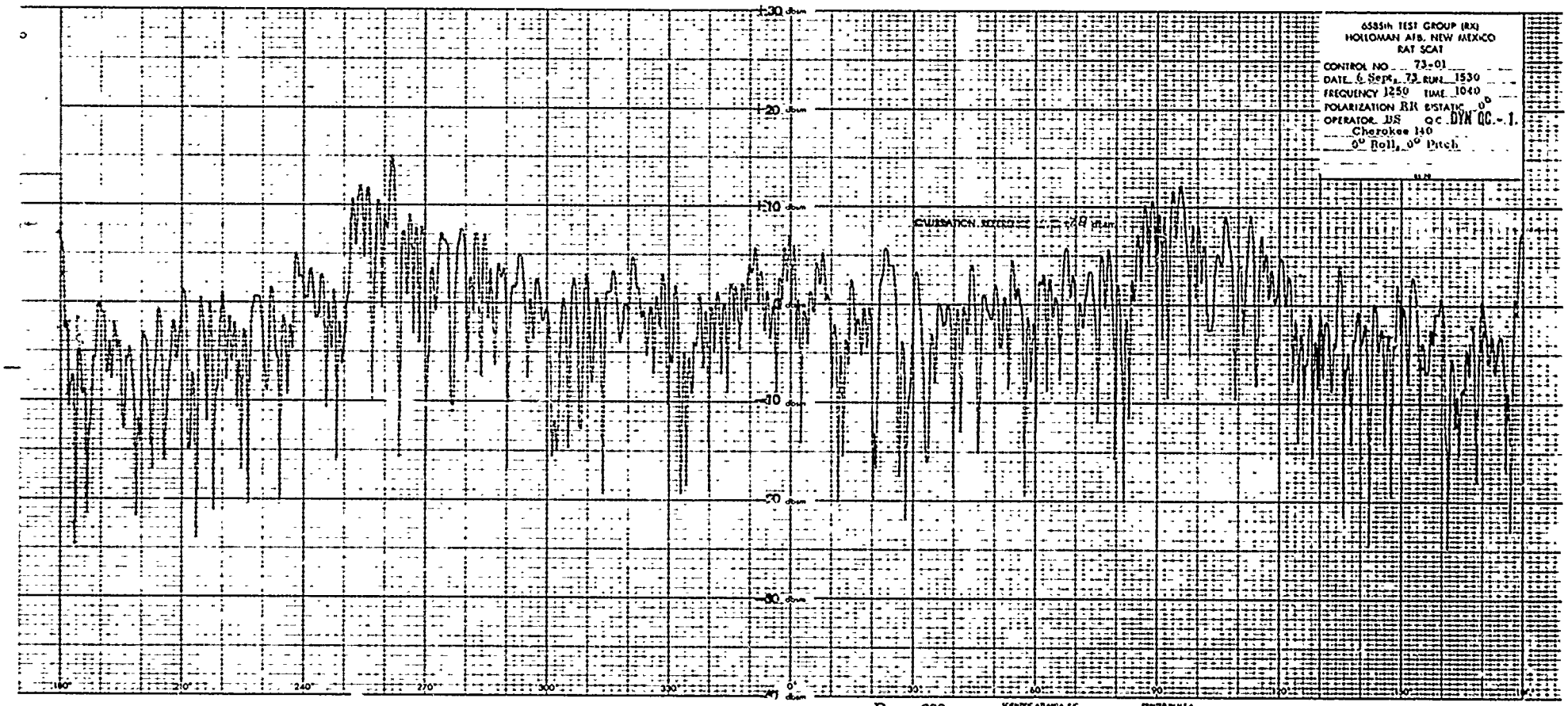
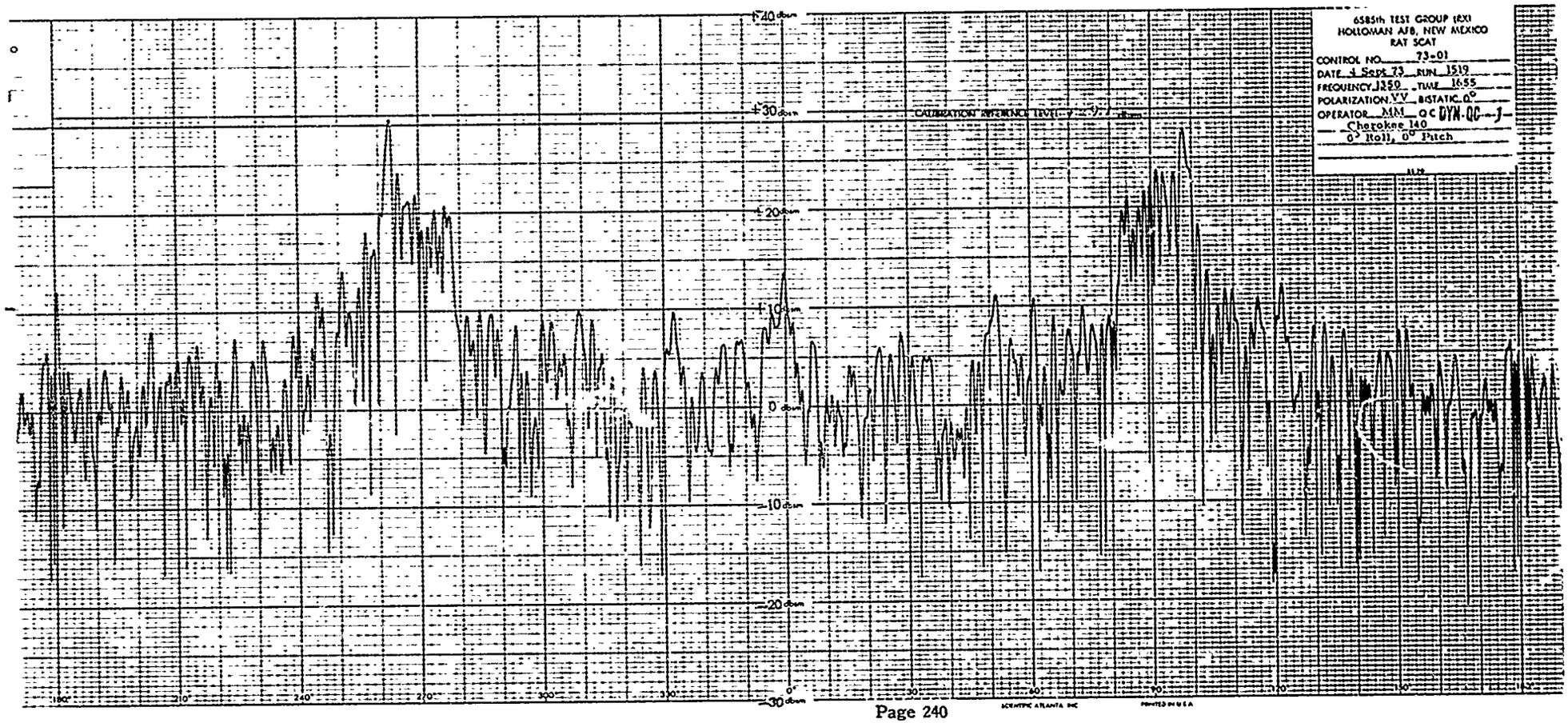
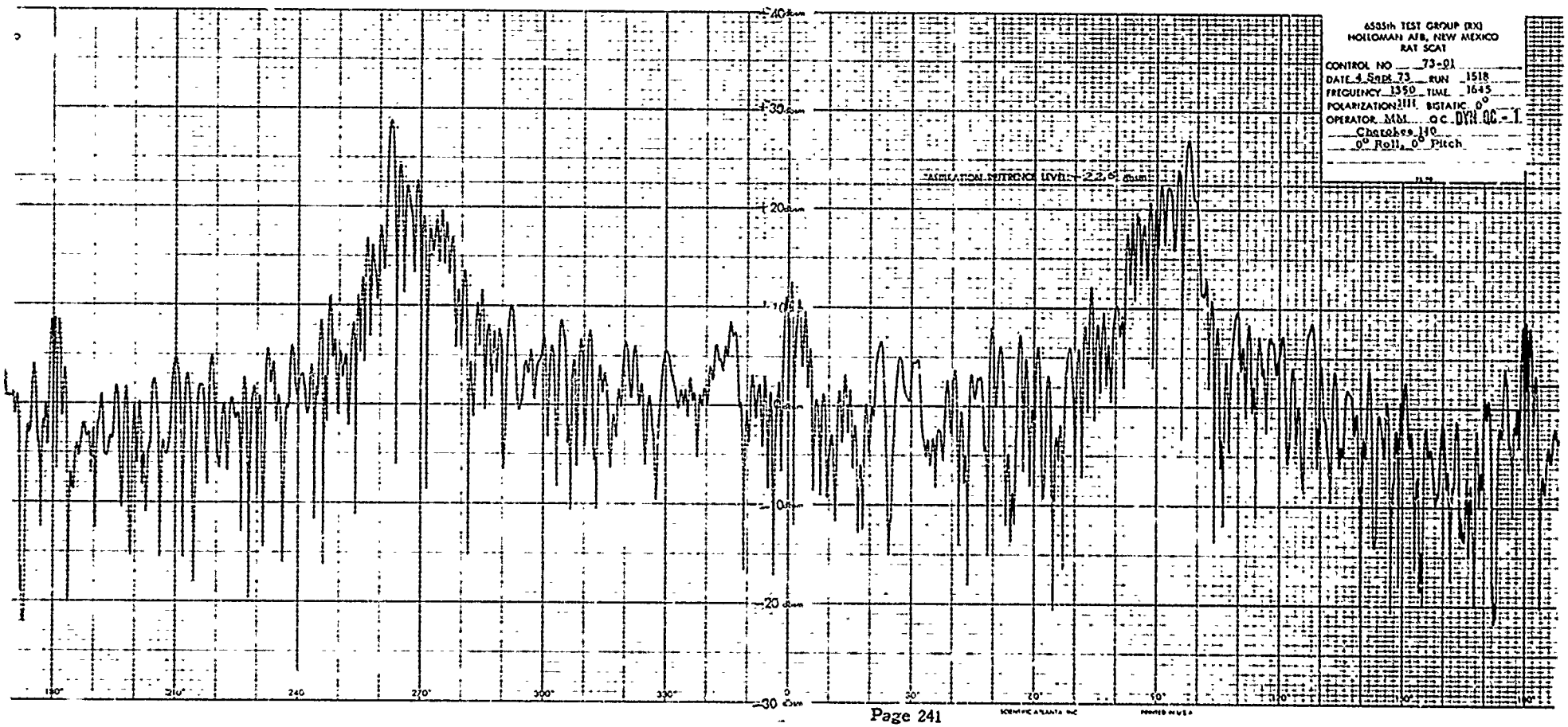
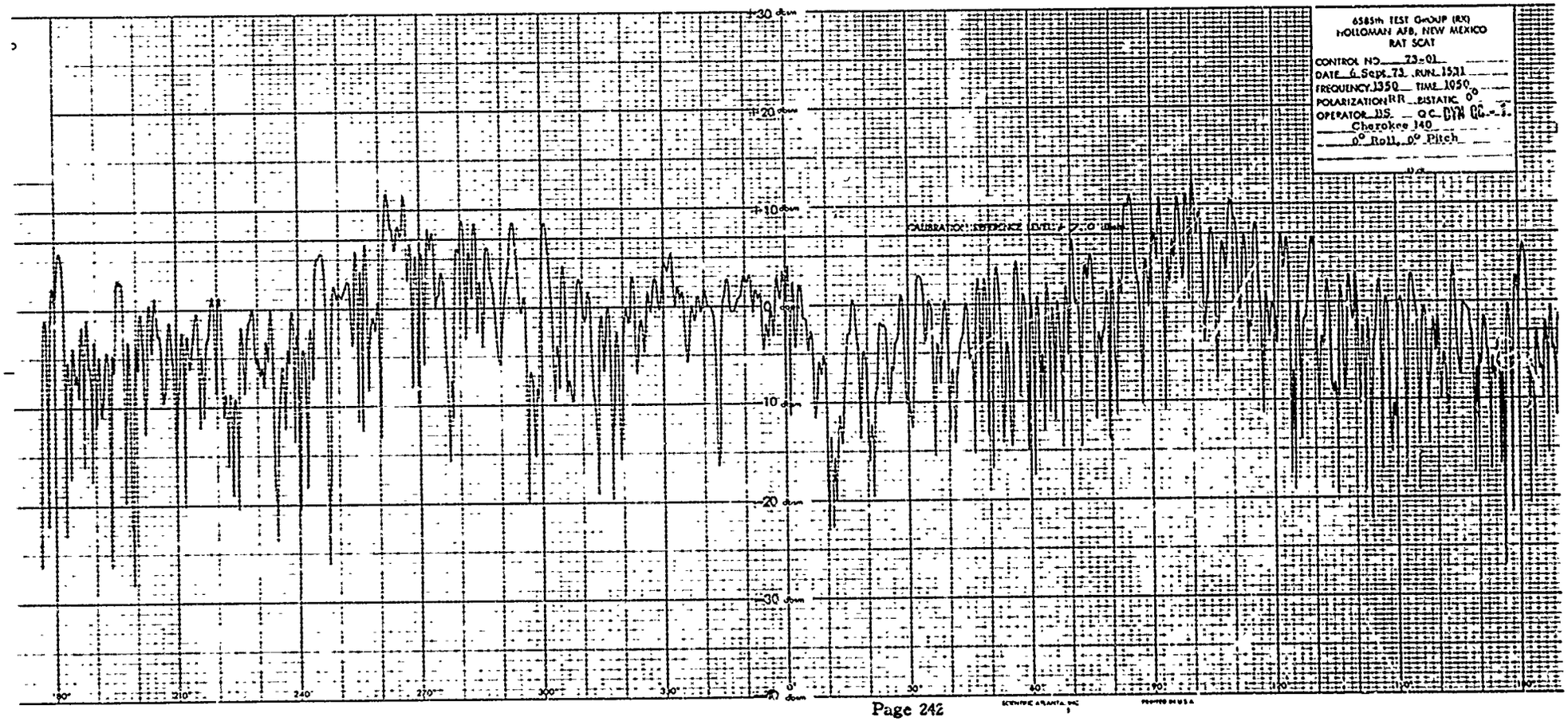
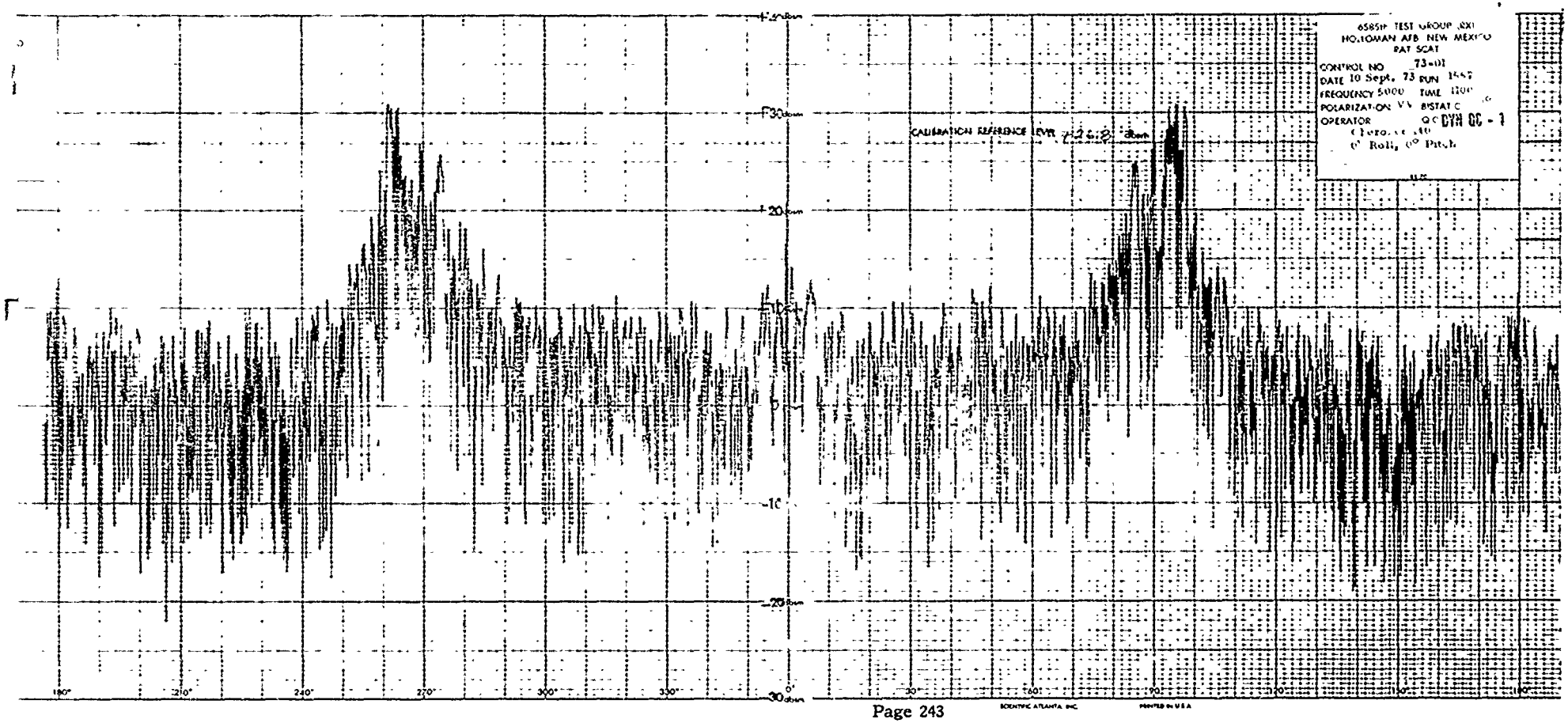
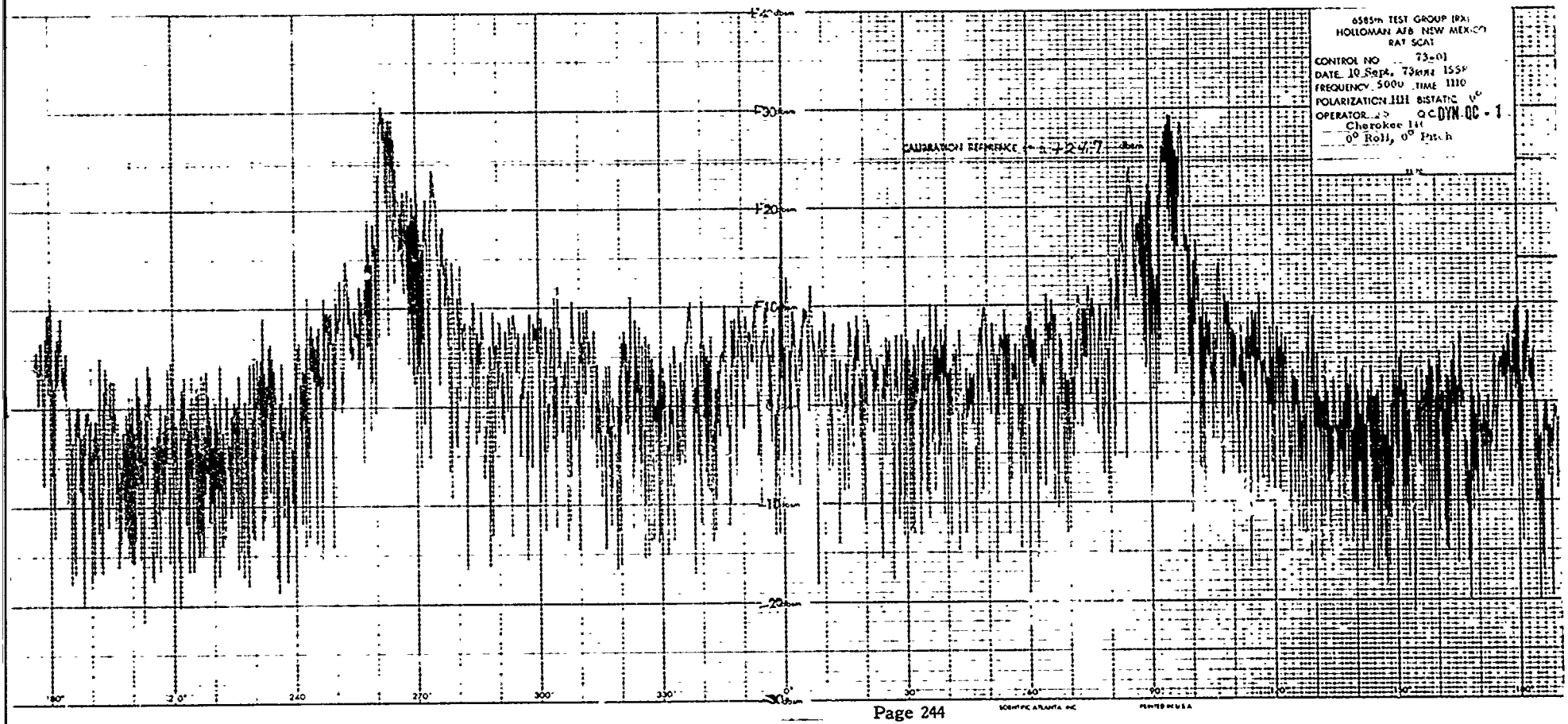

6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 6 Sept 73 RUN 1530
FREQUENCY 1250 TIME 1040
POLARIZATION RR BISTATIC 0°
OPERATOR JS QC DYN QC-1.
Cherokee 140
0° Roll, 0° Pitch
-30 dbsm
-20 dbsm
-10 dbsm
0 dbsm
10 dbsm
20 dbsm
30 dbsm
CALIBRATION REFERENCE
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 1 Sept 73 RUN 1519
FREQUENCY 1250 TIME 1655
POLARIZATION VV BISTATIC 0°
OPERATOR MM QC DYN-QC--J-
Cherokee 140
0° Roll, 0° Pitch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°
120°
150°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 4 Sept 73 RUN 1518
FREQUENCY 1350 TIME 1645
POLARIZATION HH BISTATIC 0°
OPERATOR MM QC DYN QC-1
Chaff 10
0° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL -22.0 dBsm
+40 dBsm
+30 dBsm
+20 dBsm
+10 dBsm
0 dBsm
-10 dBsm
-20 dBsm
-30 dBsm
180°
210°
240
270°
300°
330°
0
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (RX)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO. 73-01
DATE 6 Sept. 73 RUN 1521
FREQUENCY 1350 TIME 1050
POLARIZATION RR BISTATIC 0°
OPERATOR DS QC DYN CC
Cherokee 140
0° Roll, 0° Pitch
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240°
270°
300°
330°
0°
30°
60°
90°


6585th TEST GROUP (OL)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 10 Sept. 73 RUN
FREQUENCY 5000 TIME
POLARIZATION VV BISTAT C
OPERATOR
0° Roll, 0° Pitch
CALIBRATION REFERENCE LEVEL
+30
+20
+10
0
-10
-20
-30
180°
210°
240°
270°
300°
330°
30°
60°
90°
120°
150°
180°


6585m TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 10 Sept. 73 TIME 1558
FREQUENCY 5000 TIME 1110
POLARIZATION HH BISTATIC 0°
OPERATOR QC-DYN-QC - 1
Cherokee 140
0° Roll, 0° Pitch
CALIBRATION REFERENCE +24.7 dbsm
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
-10 dbsm
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-30 dbsm
180°
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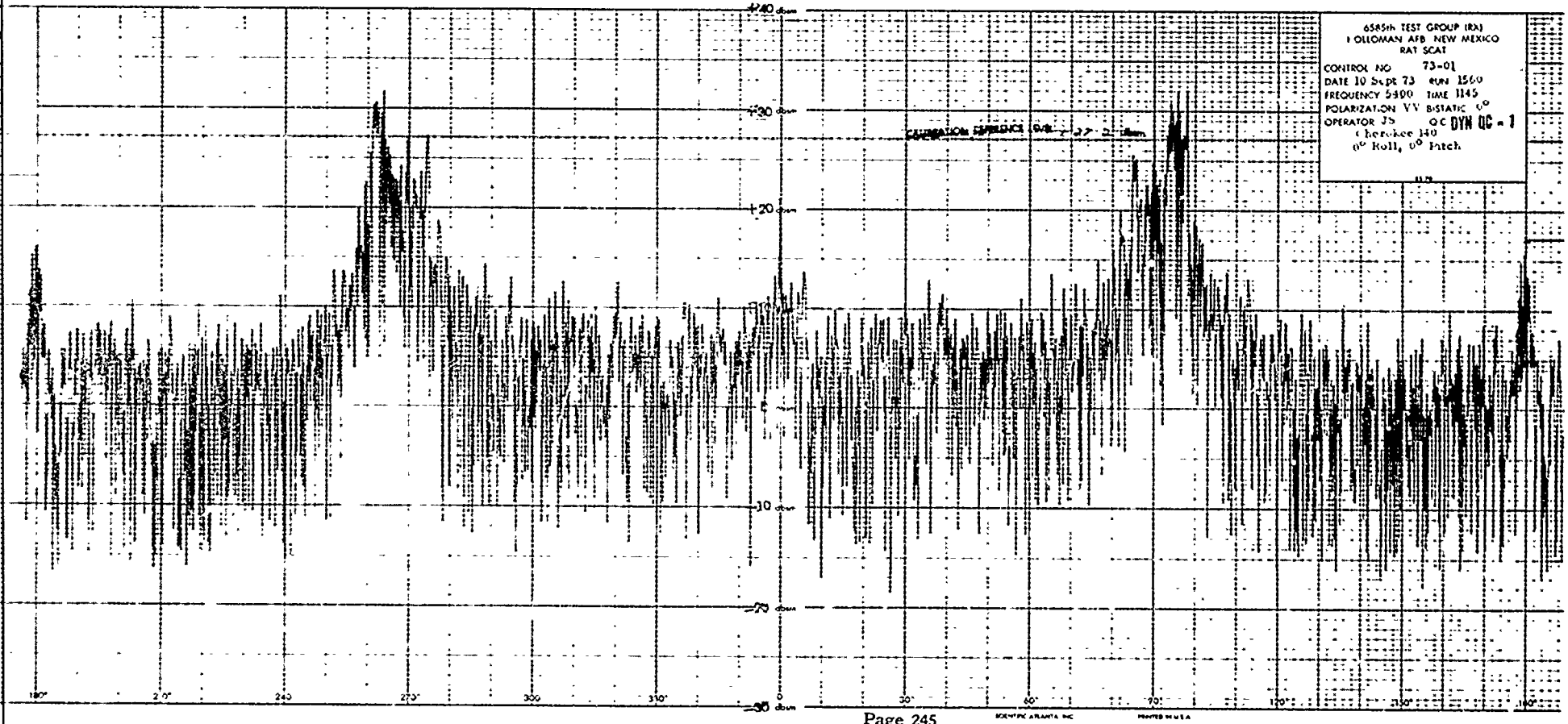
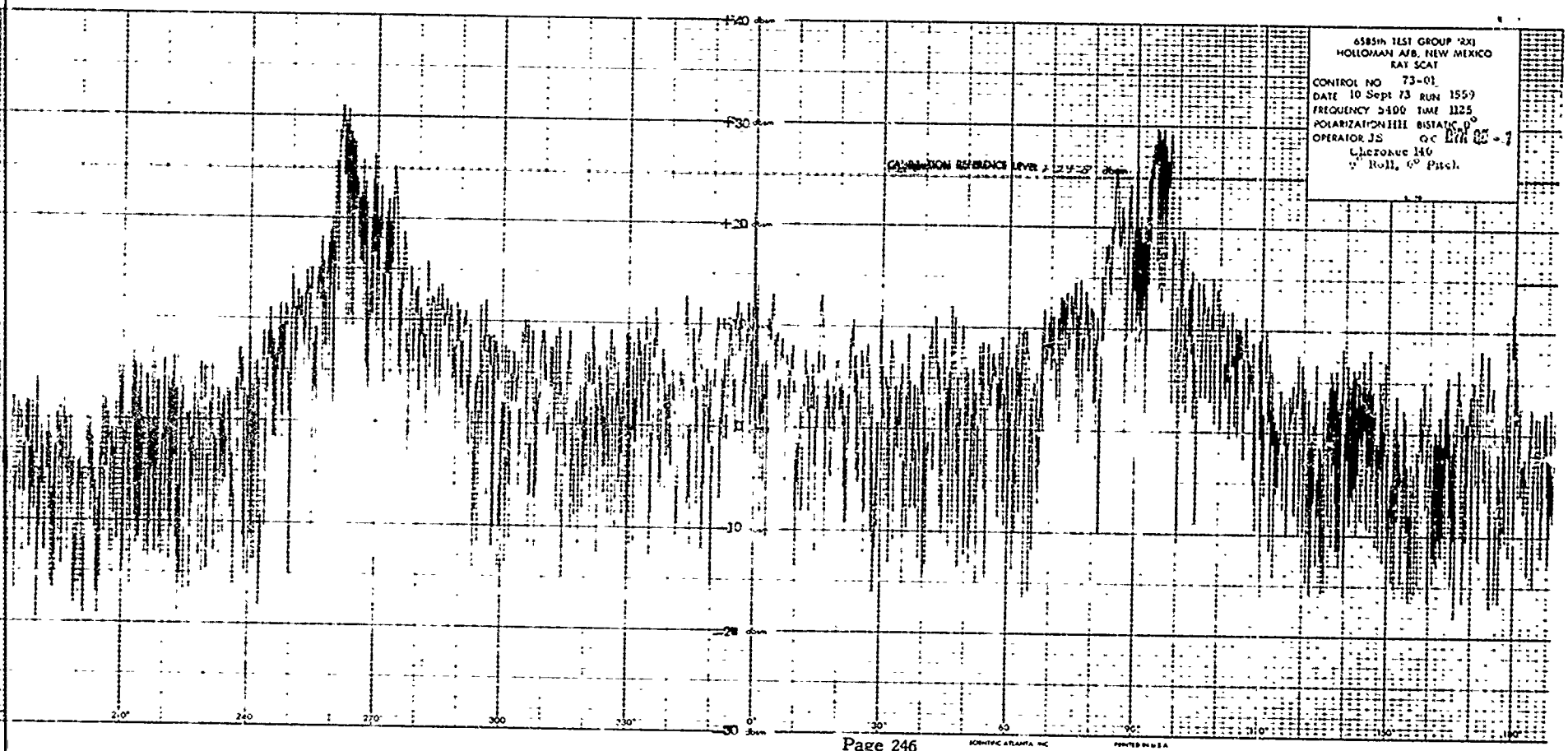
0°
30°
60°
90°


6585th TEST GROUP (RX)
HOLLOMAN AFB NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 10 Sept 73 RUN 1560
FREQUENCY 5400 TIME 1145
POLARIZATION VV BISTATIC 0°
OPERATOR JS QC DYN QC = 1
Cherokee 140
0° Roll, 0° Patch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
0 dbsm
-10 dbsm
-20 dbsm
-30 dbsm
180°
210°
240
270°
300
330°
0
30°
60°
90°
120°
150°
180°


6585th TEST GROUP (ZK)
HOLLOMAN AFB, NEW MEXICO
RAT SCAT
CONTROL NO 73-01
DATE 10 Sept 73 RUN 1559
FREQUENCY 5400 TIME 1125
POLARIZATION HHH BISTATIC 0°
OPERATOR JS QC
Chezonue 140
9° Roll, 6° Pitch
+40 dbsm
+30 dbsm
+20 dbsm
+10 dbsm
-20 dbsm
-30 dbsm
210°
240
270°
300
330°
0°
30°
60
90°
120
150°
180°

APPENDIX A
SITE INTRODUCTION

1. GENERAL

RAT SCAT is a static ground plane radar cross section measurement site, located on Alkali Flats near Holloman Air Force Base, New Mexico. It is authorized by the DOD for use by governmental agencies. It is under the auspices of the 6585th Test Group, Air Force Special Weapons Center, Kirtland Air Force Base, New Mexico.

A ground plane range utilizes radar energy reflected from the earth as well as radar energy traveling directly to the target through the atmosphere. When the antennas and target are adjusted to proper heights, coherent phase addition of these electromagnetic waves into a flat wave front, enhances the system sensitivity. Radar returns from objects near the earth's surface are reduced thus suppressing target area interference. Target area interference is reduced further through the use of special polyfoam support columns, radar absorptive materials (RAM), and rotators located below the earth's surface (in pits).

Pulsed transmitters are employed to enable utilization of the range gated receiving system, which can selectively measure radar returns from the target area or the range displaced transfer standard. Background interference outside the target range is eliminated by range gating. Operation without background cancellation is therefore practical.

2. CAPABILITIES

The RAT SCAT electronic equipment and controls are housed in a permanent building. Three separate range lengths (458 feet, 1158 feet, and 2458 feet) are provided for range variation as shown in Figure A-1. This allows the use of convenient antenna and target heights while satisfying the far field criterion for most targets. (Special 40-foot antenna towers are attached to the building for antenna height positioning.) Further versatility is provided by two mobile equipment vans, one for monostatic range length variation and one for bistatic measurements. A duplicate set of control and data consoles in the main building enables simultaneous operation of any two of the three ranges. A summary of the RAT SCAT characteristics is contained in Table A-1.

3. CALIBRATION

The normal method of calibration at RAT SCAT is to mount a primary standard (precision sphere) scatterer with a known radar cross section and record the corresponding signal level. Then the return from another secondary standard (corner or Luneberg lens) scatterer

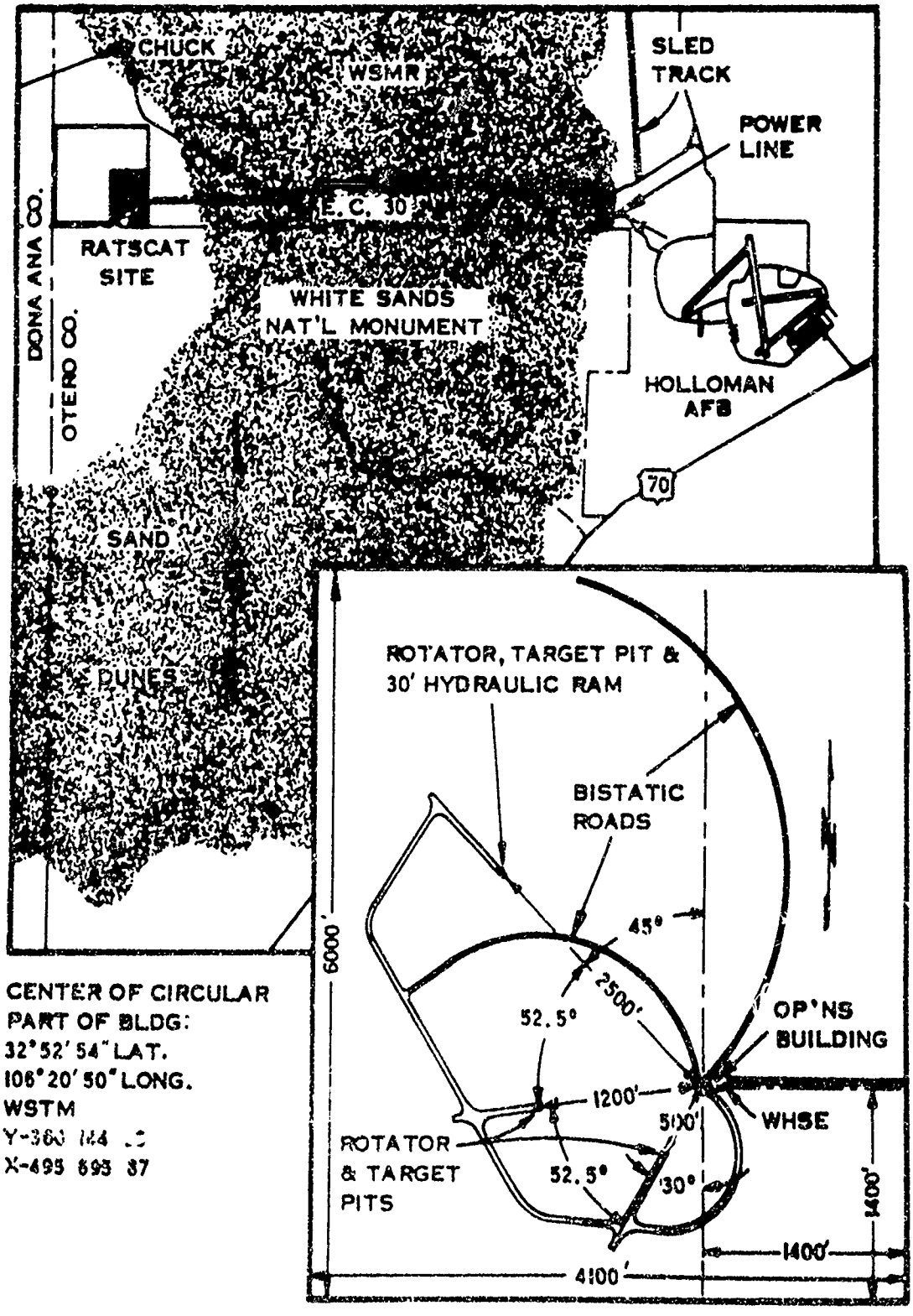


Figure A-1 MAP OF RAT SCAT SITE

TABLE A-1

RAT SCAT CHARACTERISTICS OF ELECTRONIC EQUIPMENT

Power Output	1 KW nominal bands 1 through 8, 25 KW nominal Ku, Ka bands
Pulse Width	0.1 to 1.0 microsecond
Pulse Repetition Frequency	500 to 5000 pps
No. of Receiving Systems	Two per band, (one monostatic and one bistatic)
Receiver Minimum Detectable Signal	-94 dbm nominal
Receiver Bandwidth	2 or 10 Mhz (selectable)
Range Gate Width	0.1 to 1.0 microsecond (50 to 500 feet)
Dynamic Range	70 db
Linearity	$\pm$0.5 db
Equipment Stability	0.1 db/hour (Average)
Analog Data Format	Polar and rectangular plots of cross section, glint and phase vs aspect angle
Digital Data Format	7 or 9 track magnetic (see Appendix C)
Antennas	1, 2, 3, 4, 6, 10, and 16 foot parabolic dishes (smaller and larger dishes available for special tests)
Antenna Feeds	Linear and circular horns with VSWR less than 2.0 to 1.0
Polarization	Horizontal, vertical, circular, elliptical in any transmitting and receiving configuration.
Background Level	As low as -80 dbsm (frequency dependent)
Background Reduction	Tuned columns and vector subtraction by using phase and amplitude measurements to reduce background by 20 db
Phase Measurement	Unique RAT SCAT capability for vector subtraction or scattering matrix applications
Azimuth Resolution	0.1 or 0.01 degree as applicable
Maximum Target Weight	40,000 pounds
Target Size	Greater than 60-foot length
Bistatic Capability	Primary ranges of 458 , 1158 , and 2458 feet for 0 to 160 degree bistatic angle
Frequency Coverage	100 to 18,000 MHz continuous, Ku, Ka bands and 95 GHz

Band 1 - 10u to 250 MHz
Band 2 - 250 to 500 MHz
Band 3 - 500 to 1000 MHz
Band 4 - 1000 to 2000 MHz
Band 5 - 2000 to 4000 MHz
Band 6 - 4000 to 8000 MHz
Band 7 - 8000 to 12,000 MHz
Band 8 - 12,000 to 16,000 MHz
Ku, Ka bands;
95 GHz

Range Length — 300 feet minimum

Building/Pit 1 - 458 ft
Building/Pit 2 - 1158 ft
Building/Pit 3 - 2458 ft
Monostatic Van/Pits 1, 2, or 3 - variable range length

displaced in range is recorded as a transfer standard. Both the precision standard return and the transfer standard return are recorded on the same plot. Thereafter, radar cross section calibration is determined by referencing the transfer standard return for every run. Thus every run is recalibrated. The comparisons of primary and transfer standards accomplished before and after each measurement series are identified respectively as calibration and post-calibration. If the direct ratio of primary to secondary readings is not maintained before and after the measurement series, then all runs between are invalid and must be repeated.

The calibration reference level marked on each data plot is related to the transfer standard level. This reference level may under controlled conditions differ from the actual transfer standard signal level since precision calibrated attenuation is sometimes inserted in the receiver line. When such attenuation is inserted, returns from the transfer standard are reduced to a level compatible with the scale used for the target measurements. The 70 db dynamic range of the plot is placed to include the range of returns expected from the vehicle being measured. In some cases two runs are necessary to be plotted for direct overlay to include the dynamic range of the vehicle if it exceeds 70 db. Calibration plots are included with the target data when requested by the user.

The sphere calibration plots will not necessarily be straight lines. If the background return is within 20 db of the sphere return, for example, a variation in sphere return of approximately $\pm$ 1db can result. For calibration the sphere is intentionally placed at least 1/2 wavelength off the center of table rotation to insure sufficient phasing with the background return. The average sphere return is then chosen for a calibration level. This avoids the peak errors involved with coherent addition of sphere return and background return and allows the minimum errors involved with non-coherent addition of the returns. This is indicated in Figure A-2.

4. OPERATING PROCEDURES

The following step-by-step procedure is standard in obtaining monostatic radar cross section measurements after frequency, feeds, antennas, antenna height, target height, and pit (range length) have been chosen:

1. Calibration - As described in previous section.

2. Horizontal and vertical probes (field strength measurements at the target area) - Horizontal probes at the target area have been shown to be redundant for azimuthal boresighting. For this reason, these probes are taken only upon request for examination of near field effects.

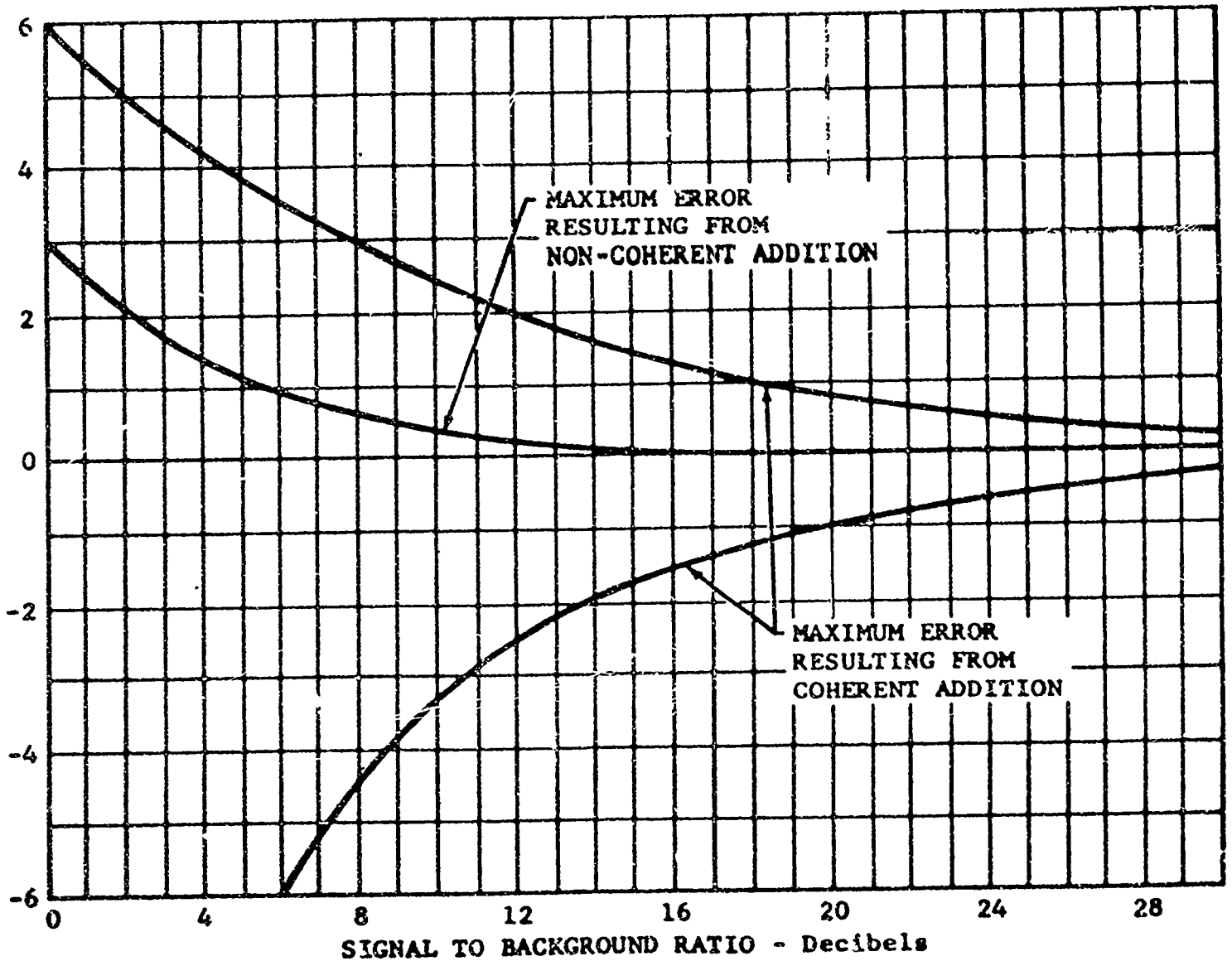


Figure A-2 PLOT OF ERROR INDUCED BY BACKGROUND INTERFERENCE

Vertical probes are taken at the target area to determine power variation as a function of target height. If necessary, antenna height is varied to obtain an acceptable vertical probe which then necessitates a new calibration.

3. Background - The background level with the target mount in place is measured in each polarization to be used.

4. Measurement - The measurement is made with the vehicle in the position previously occupied by the primary standard.

5. Calibration - The primary calibration is repeated to verify calibration (post calibration).

APPENDIX B
TARGET ORIENTATION AND DATA FORMAT

1. COORDINATE SYSTEM

The coordinate system described herein has been adopted as a standard for RAT SCAT operations. The system is referenced both to the vehicle being measured and to the measurement site.

a. Vehicle Reference

A three-axis system, referenced to an arbitrary vehicle, is illustrated in Figure B-1. In this system three mutually perpendicular planes (yaw, pitch, and roll) are passed through the vehicle so that the pitch and yaw planes mutually intersect on the longitudinal axis of the vehicle. These planes remain fixed with respect to the vehicle, regardless of vehicle rotation with respect to the radar or ground plane. The yaw plane, which includes the pitch axis and the roll axis, is numbered from 0 degrees to 360 degrees in a clockwise direction when the vehicle is viewed from the above. The nose-on aspect corresponds to 0 degrees, the starboard side of the vehicle corresponds to 90 degrees, and the port side to 270 degrees. The pitch plane, which contains the roll axis and the yaw axis is numbered from 0 degrees to ± 180 degrees; the + 90 degree point is below the center line, and the - 90 degree point is above the center line. The roll plane contains the yaw axis and the pitch axis. It is numbered from 0 degrees to 360 degrees, and the numbers increase in a counterclockwise direction when the vehicle is viewed from the rear.

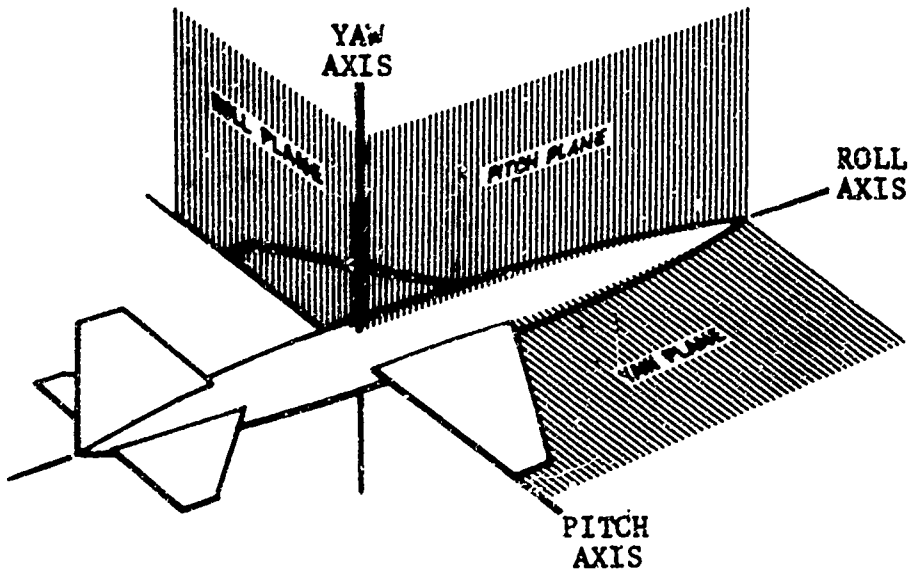
b. Site Reference

As previously stated the coordinate system is fixed with respect to the vehicle. It is referenced to the site by means of three index marks. The exact value of any of the three angles is determined by noting the value of the vehicle coordinate opposite the index marks. Index marks come from such devices as bubble levels, inclinometers and transits.

As illustrated in Figure B-2, the index for roll angles is normal to the axis of rotation. As illustrated in Figure B-3, the index for pitch angles is normal to the axis of rotation and in line with the apparent source of radiation. For measurements at the RAT SCAT Site, targets can be mounted to provide desired pitch and roll angles.

c. Coordinate System Tilt

For small targets another angle, tilt, can be utilized in recording useful data. This angle, equipment-limited to less than 15 degrees, is formed by the axis of rotation and the normal to the line of sight to the



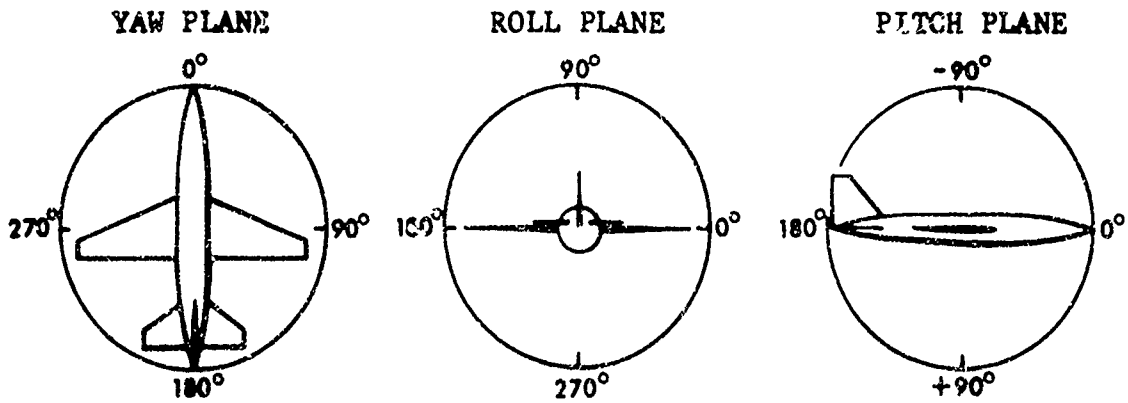
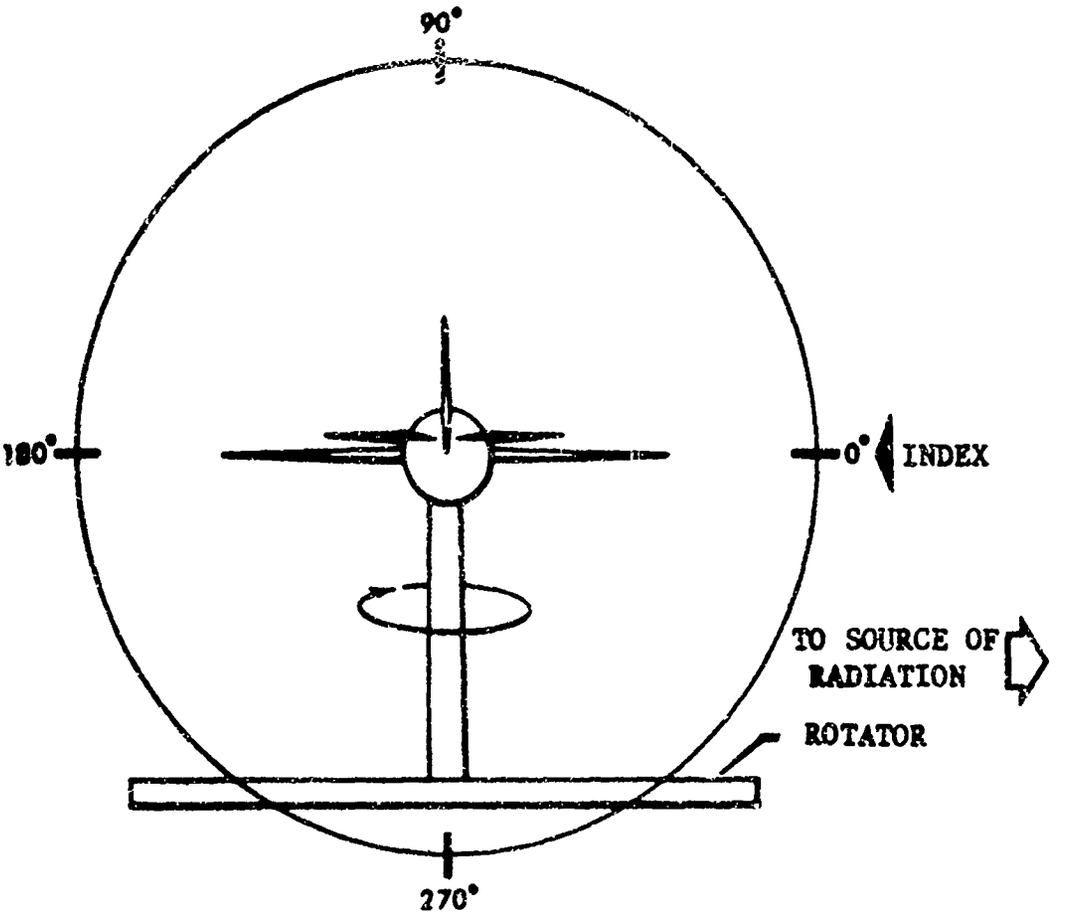
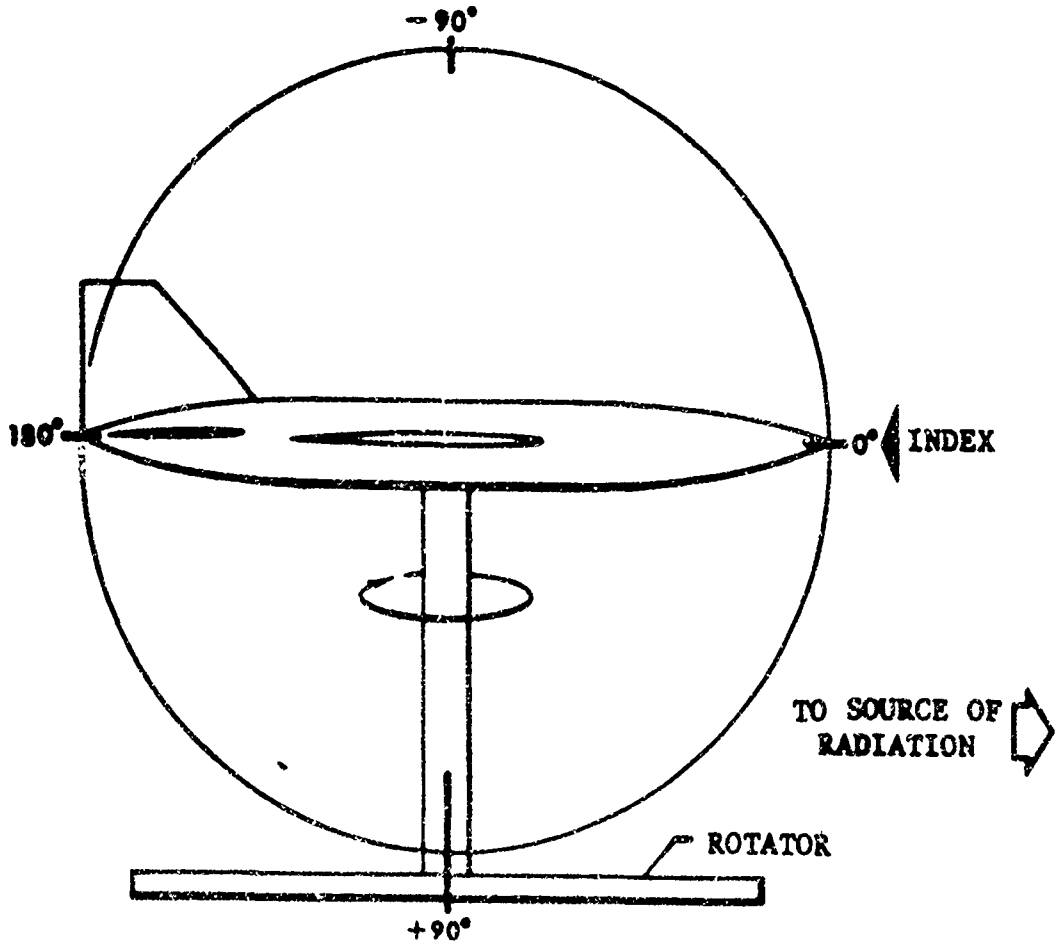


Figure B-1 VEHICLE COORDINATE SYSTEM



NOTE: The roll scale is fixed to the vehicle. The amount of roll is determined by noting the number of degrees opposite the index. Clockwise rotation of the target (when viewed from the rear) increases the roll angle.

Figure B-2 TARGET ORIENTATION - ROLL



NOTE: The pitch scale is fixed to the vehicle. The number of degrees of pitch is determined by noting the scale value opposite the index.

Figure B-3 TARGET ORIENTATION - PITCH

apparent source of radiation. Since, in a ground plane range, radiation can be considered to emanate from a point with zero height directly beneath the antennas, a zero-degree tilted axis of rotation is slightly off the geometrical vertical. This small deviation from the geometrical vertical is neglected in the following discussions.

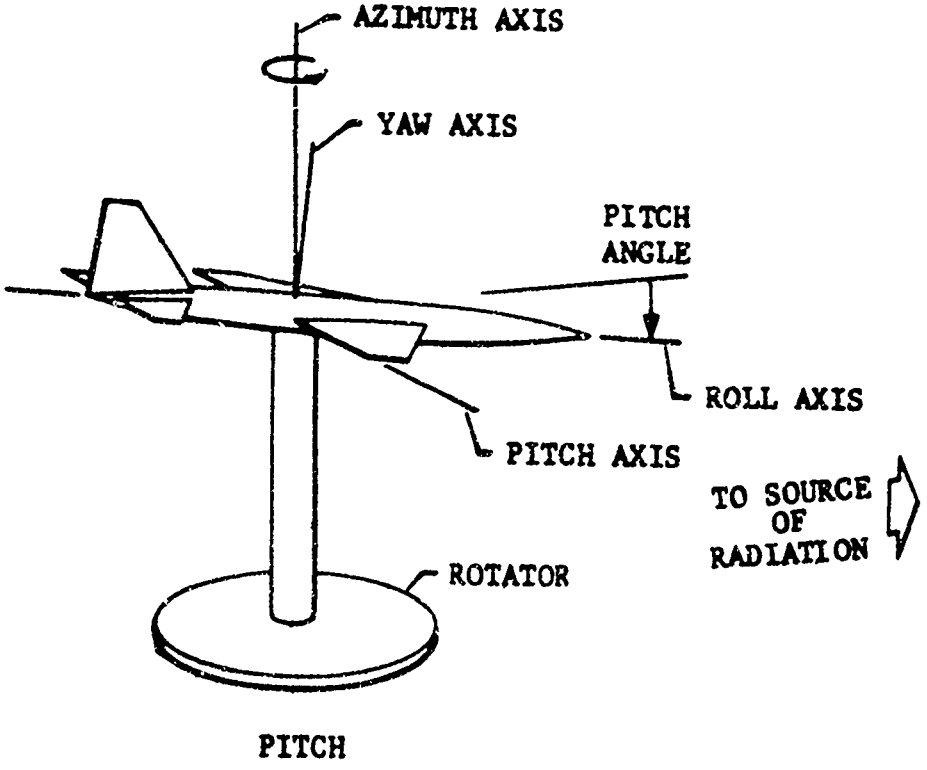
A target mounted with a pitch angle other than zero displaces the yaw axis from the vertical, but not the axis of rotation. The axis of rotation is displaced from the vertical only when non-zero tilt is employed. Tilting toward the radar is considered positive tilt and away from the radar is negative tilt. For monostatic measurements tilt will be measured in the vertical plane containing the line of sight between the radar and the target. The difference between pitch and tilt is shown in Figure B-4.

2. DATA FORMAT

Data recorders obtain azimuth angle information by means of precision synchro signals from the position of the rotating table. The line of sight from the antennas to the center of the rotator, as illustrated in Figure B-5, indexes azimuth angles. As used here the term azimuth refers to the position of the target rotator table. With zero degrees of pitch and roll, azimuth and yaw are identical. It is standard practice to turn the rotator in a clockwise (cw) direction as viewed from above. Consequently, the azimuth angle varies, for example from 180 degrees (tail-on) to 90 degrees (starboard-side) to 0 degrees (nose-on) to 270 degrees (port-side).

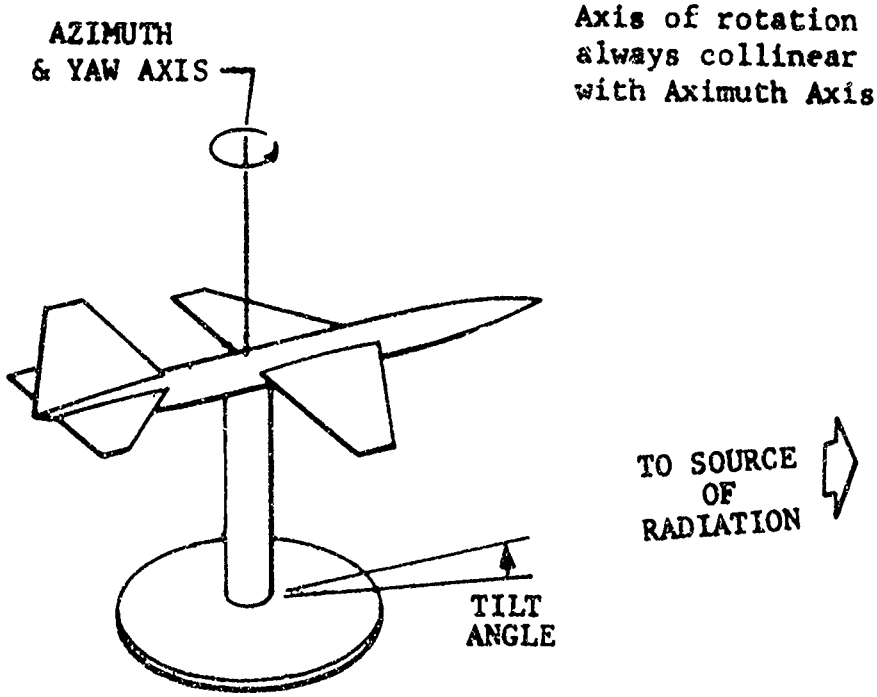
a. Polar and Rectilinear Plots

Essential information pertinent to each plot is contained in the information block located in the upper right hand corner of the rectilinear plots and in the second quadrant of the polar plots. Each rectilinear plot has the recording of the return from the left side of the vehicle on the left side of the plot, 0 degrees at the center, and the recording of the return from the right side of the vehicle on the right side of the plot; 180 degrees (tail-on) appears at the right and left extremeties of the plot, as shown in Figure B-6. Since the paper moves from left to right under the recorder pen, it should be noted that measurements are limited at 180 degrees in order to obtain continuous measurements on the recorder paper. The table on the polar recorder is rotated in the same directions as the target so the 90-degree point appears on the right side of the polar plot, the 270 degree point on the left, and the zero or 360 degree point at the top of the plot.



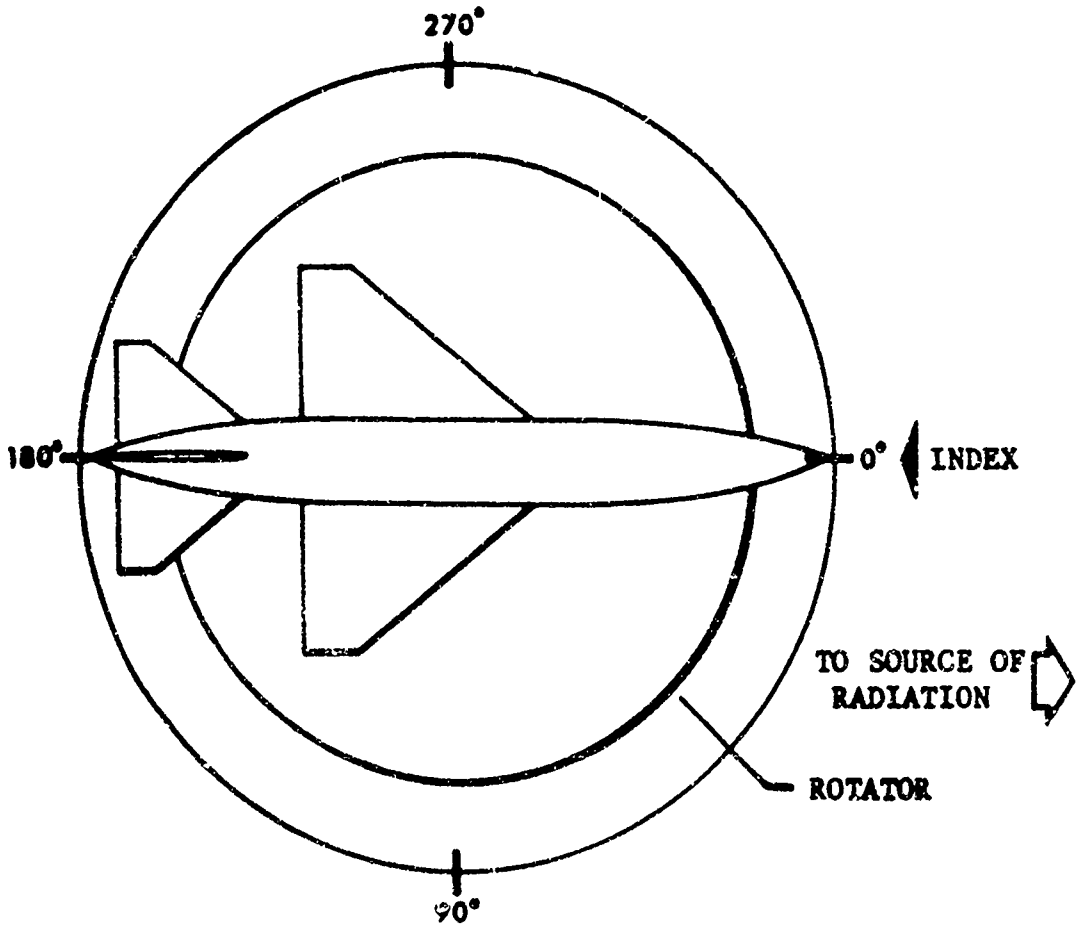
PITCH

NOTE:
Axis of rotation is always collinear with Aximuth Axis



TILT

Figure B-4 COMPARISON OF PITCH AND TILT ORIENTATIONS



NOTE: The azimuth scale is fixed to the target rotator. The azimuth value is determined by noting the value of the scale opposite the index mark as the rotator and scale revolve. The index is the line-of-sight from the radar antennas to the center of the rotator. (Azimuth angle data are transmitted to the data recorders by means of synchro signals.) The standard direction of rotation will be clockwise.

Figure B-5 TARGET ORIENTATION - AZIMUTH

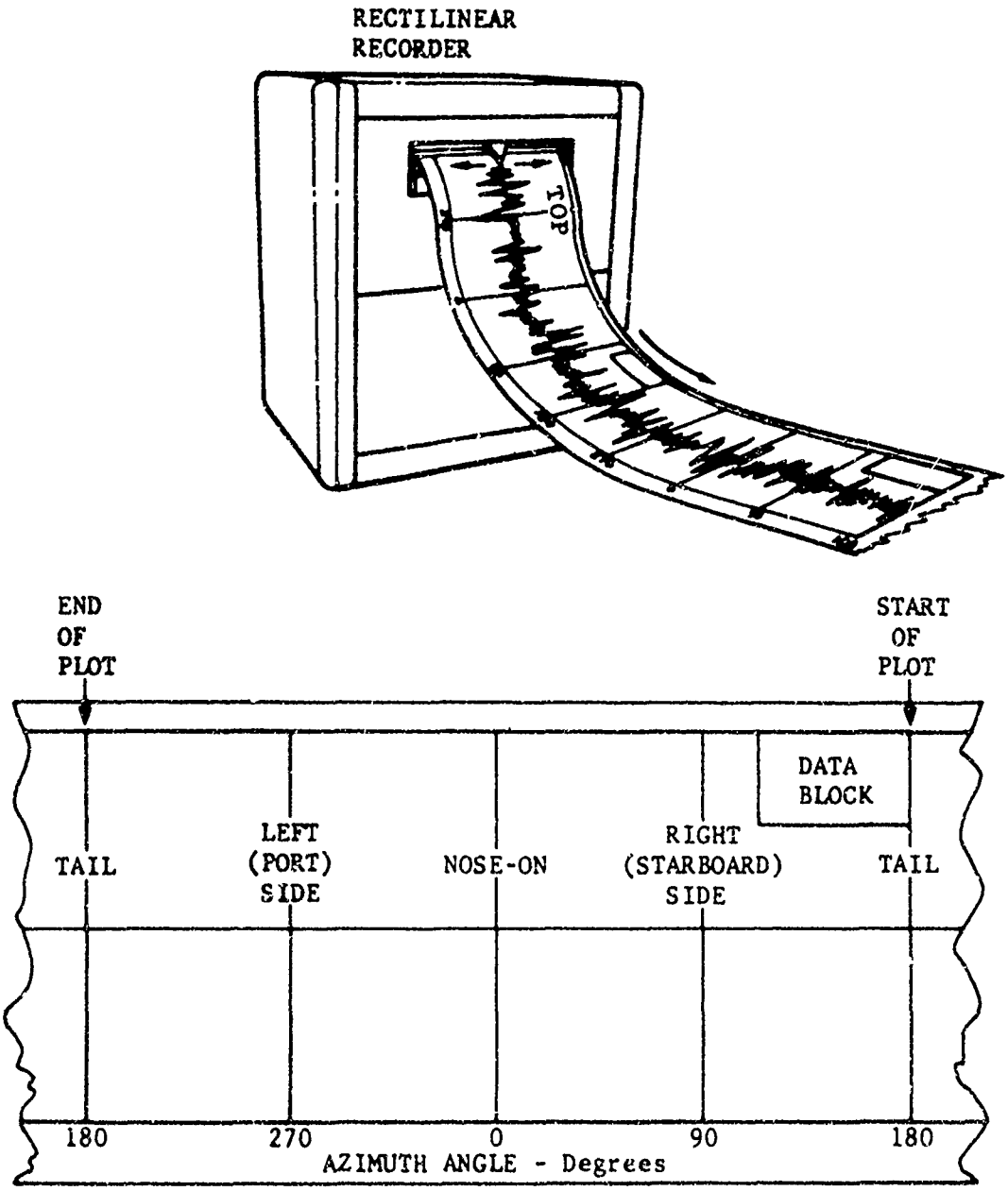


Figure B-6 FORMAT FOR RECTILINEAR PLOTS