Attachment 1
PetroCom License Corporation
Application for Earth Station Special Temporary Authority

JUSTIFICATION FOR SPECIAL TEMPORARY AUTHORITY

PetroCom License Corporation ("PetroCom"), pursuant to the provisions of Section 25.120 of the rules and regulations of the Federal Communications Commission ("FCC" or "Commission") hereby requests that the FCC grant it special temporary authority ("STA"), for a period of thirty (30) days, beginning on November 23, 2007, to operate the facilities associated with the satellite earth station (the "Station") described in the attached technical description, for testing purposes only. PetroCom will ultimately operate the Station from the Tahiti oil production platform (the "Platform") in the Gulf of Mexico (the "Gulf") owned by Chevron. The Station will allow PetroCom to provide service to Chevron. The Station will permit Chevron to communicate from the Platform to Chevron personnel on shore. It is anticipated that the Station will be shipped to the Platform within sixty (60) days of grant of STA. PetroCom has received authority to operate the Station on a permanent basis from the Platform.[1/] The FCC previously issued STA to PetroCom covering the interim operation of this station for testing purposes, but testing is not yet complete and the Station is not yet ready to be shipped to the Platform.[2/]

As the FCC has recognized by granting PetroCom STA for testing purposes under similar conditions, prior to shipping the Station to the Platform and deploying the Station on the Platform, it is necessary for PetroCom to test the Station at a shipyard in Ingleside, Texas.[3/] By testing the Station before it is deployed in the Gulf, PetroCom will be able to ensure its proper functioning prior to shipment. Once the Station is shipped to the Platform it will be the principal source of communications from the Platform. Because the Station will be the primary means of communications on the Platform, testing after the installation of the Station poses a risk to the safety and health of personnel onboard as well as to the environment, in the event of an incident requiring intervention. With testing verified at the shipyard in Ingleside, communications will be available immediately once the Station is installed.

Accordingly, testing of the Station at the shipyard location is necessary before the Station is transported to the Platform in the Gulf. STA under these conditions is contemplated by Section

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1/ *See* PetroCom License Corporation, FCC File No. SES-LIC-20070622-00852, Callsign E070119 (granted July 31, 2007).

2/ *See* PetroCom License Corporation, FCC File No. SES-STA-20071022-01447 (granted October 23, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070921-01307 (granted September 25, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070823-01118 (granted August 27, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070724-00981 (granted July 26, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070626-00871 (granted June 27, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070524-00719 (granted May 25, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070424-00513 (granted April 27, 2007).

3/ *See, e.g., Id.;* PetroCom License Corporation, FCC File No. SES-STA-20050623-00809, Callsign E050131 (granted June 27, 2005); PetroCom License Corporation, FCC File No. SES-STA-20041123-01729, Callsign E040444 (granted December 7, 2004).

25.120(a) of the FCC's rules, which states that STA may be requested for "circumstances requiring…temporary use of facilities." It would be inefficient for the FCC to process an application for permanent authorization for the Station at the shipyard facility, because of the limited duration at which the Station will be located there.

Accordingly, the FCC is requested to issue STA to PetroCom, effective November 23, 2007, for a period of thirty (30) days, so that it may test the Station on land before it is deployed to the Platform in the Gulf. If there are any questions regarding this STA request, the FCC is asked to contact communications counsel for PetroCom, Russell H. Fox of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., 202-434-7483, rfox@mintz.com.

Attachment 2
PetroCom License Corporation
Application for Earth Station Special Temporary Authority

Request for Waiver

PetroCom License Corporation ("PetroCom") hereby requests that the Federal Communications Commission ("FCC" or "Commission") waive the provisions of Section 25.209 to permit it to operate an earth station antenna in the 4/6 GHz Band (the "C Band") that does not comply with the antenna gain limitations specified in the FCC's rules. This waiver request is submitted in support of PetroCom's request for special temporary authority ("STA") to test a satellite earth station (the "Station") at a location other than where it will be permanently installed. PetroCom has obtained permanent authorization for the Station, which included a separate request for waiver of the rules in connection with that application.[1/] Attached to this wavier request are the following exhibits:

Exhibit A - Frequency Coordination for Testing
Exhibit B - Radiation Hazard Study
Exhibit C - Schedule B, Technical and Operational Description of Earth Station During Testing
Exhibit D - Electrical Test Report for SeaTel 2.4 m Antenna
Exhibit E - Data Tables
Exhibit F - Affidavits from Adjacent Satellite Operators

PetroCom attests to the fact that, as demonstrated by the attached Radiation Hazard Report (Exhibit B), the safe limits for non-ionizing radiation (1m/W/cm²) will not be exceeded.

Despite the fact that the main beam of the proposed earth station antenna does not conform to the provisions of Section 25.209(a) and (b), the FCC should grant the requested waiver and STA because PetroCom will not cause unacceptable levels of interference under conditions of uniform 2 degree orbital spacings. The antenna pattern of the Station exceeds the gain specifications of Section 25.209 for the sidelobe envelope in the ±1.0° to 1.9° region by a maximum of 9.0 dB, at 6 GHz. Outside the main beam, the antenna meets the requirements of Section 25.209 of the FCC's rules.

However, the effects of non-compliance with the antenna gain requirements are ameliorated by the reduction in power of the transmit antenna. The provisions of Section 25.212 of the FCC's rules specify that the maximum RF power density normally licensed for smaller diameter antennas, utilizing C-band data traffic, is -2.7 dBW/4 kHz. The Station is proposed to operate with an RF transmit power density of –34.96 dBW/4 kHz. A comparison of the FCC's maximum authorized RF transmit power density (-2.7 dBW/4 kHz) and the actual transmit power density of the proposed earth station (-34.96 dBW/4 kHz), indicates that the applied-for transmit power density is 32.76 dBW lower than the specified power restrictions. When the

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1/ *See* PetroCom License Corporation, FCC File No. SES-LIC-20070622-00852, Callsign E070119 (granted July 31, 2007).

antenna pattern envelopes are considered, the applied-for transmit power density is still 23.76 dBW less than the maximum RF power density normally licensed by the FCC.

To support Petrocom's claim that the operation it proposes will not cause adjacent satellites exposure to greater EIRP density from PetroCom's facilities than those adjacent satellites would experience from an antenna conforming to the gain patterns of Section 25.209(a) and operating at the EIRP density limits specified in Section 25.212(c), Petrocom submits an Electrical Test Report prepared for the antenna manufacturer showing the gain patterns of the antenna. To supplement this claim Petrocom is also submitting a data table showing how the proposed operation meets the Commission's off-axis criteria at various elevation angles.

This reduced RF transmit power will result in acceptable performance for the antenna with respect to adjacent satellite interference. PetroCom will operate with the AMC-3 satellite (87 degrees W.L.). PetroCom has obtained consent to the use of these non-conforming antennas from all affected parties. Affidavits from PanAmSat and Loral attesting that they are aware and acknowledge Petrocom's proposed operation in the C Band and that they do not object to that operation are attached hereto. In any case, if the use of this antenna should cause interference into other systems, PetroCom will terminate transmissions immediately upon notice from the affected parties.

Finally, PetroCom notes that previous licenses and STAs have been granted to it by the FCC for this size antenna, including for this Station.[2/] Accordingly, grant of the requested STA and the forthcoming underlying application will be consistent with past Commission practice.

Should there be any questions regarding this waiver request, the FCC is asked to contact communications counsel for PetroCom, Russell H. Fox of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., 202-434-7483, rfox@mintz.com.

[2/] *See, e.g.*, PetroCom License Corporation, FCC File No. SES-STA-20071022-01447 (granted October 23, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070921-01307 (granted September 25, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070823-01118 (granted August 27, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070724-00981 (granted July 26, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070626-00871 (granted June 27, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070524-00719 (granted May 25, 2007); PetroCom License Corporation, FCC File No. SES-STA-20070424-00513 (granted April 27, 2007); PetroCom License Corporation, FCC File No. SES-STA-20050623-00809, Callsign E050131 (granted June 27, 2005); PetroCom License Corporation, FCC File No. SES-STA-20041123-01729, Callsign E040444 (granted December 7, 2004); PetroCom License Corporation, FCC File No. SES-LIC-20050505-00538, Callsign E050131 (granted June 13, 2005); PetroCom License Corporation, FCC File No. SES-STA-20041122-01722, Callsign E040444 (granted January 26, 2005).

Prepared By
COMSEARCH
19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 http://www.comsearch.com

Prepared For
PETROCOM LICENSE CORP.
Temporary Transmit-only Earth Station
Operation Dates: 05/01/2007 – 11/01/2007

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Transmission will be restricted to the bandwidth shown in the frequency coordination section of this report.

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations. Verbal and written coordination was conducted with the below listed carriers on 03/22/2007.

Company
American Electric Power Service Corp.
BorderComm Partners LP (XC)
Cingular Wireless of Texas RSA #16 Ltd
Enterprise Products Operating LP
Federal Communications Commission
Houston Cellular Telephone Co, LP - N TX
Houston Cellular Telephone Co, LP - S TX
Port of Corpus Christi Authority
Texas A&M University - Kingsville
Texas RSA 19 Ltd Partnership
Texas RSA 20B1 Ltd Partnership

There are no unresolved interference objections with the stations contained in these applications.

The following section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 http://www.comsearch.com

Date: 03/22/2007
Job Number: 070322COMSTC08

Administrative Information

Licensee Name: PETROCOM LICENSE CORP.

Site Information — INGLESIDE, TX

Venue Name	GMF TAHAITI
Latitude (NAD 83)	27° 52' 5.0" N
Longitude (NAD 83)	97° 10' 24.0" W
Climate Zone	B
Rain Zone	2
Ground Elevation (AMSL)	2.13 m / 7.0 ft

Link Information

Satellite Type	Geostationary
Mode	TO - Transmit-Only
Modulation	Digital
Satellite Arc	87° W to 87° West Longitude
Azimuth Range	159.0° to 159.0°
Corresponding Elevation Angles	55.6° / 55.6°
Antenna Centerline (AGL)	60.66 m / 199.0 ft

Antenna Information — Transmit

Manufacturer		SEATEL
Model		9797
Gain / Diameter		41.7 dBi / 2.4 m
3-dB / 15-dB Beamwidth		1.00° / 2.00°
Max Available RF Power	(dBW/4 kHz)	-24.96
	(dBW/MHz)	-0.96
Maximum EIRP	(dBW/4 kHz)	16.74
	(dBW/MHz)	40.74
	(dBW)	40.54
Interference Objectives:	Long Term	-154.0 dBW/4 kHz 20%
	Short Term	-131.0 dBW/4 kHz 0.0025%

Frequency Information — Transmit 6.1 GHz

Emission / Frequency Range (MHz)	960KG7D / 5925.00 - 5959.75
	960KG7D / 5989.95 - 6211.79
	960KG7D / 6241.99 - 6425.00
Max Great Circle Coordination Distance	113.7 km / 70.6 mi
Precipitation Scatter Contour Radius	100.0 km / 62.1 mi

COMSEARCH

Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147
(703)726-5500 http://www.comsearch.com

Coordination Values	**INGLESIDE, TX**
Licensee Name	PETROCOM LICENSE CORP.
Latitude (NAD 83)	27° 52' 5.0" N
Longitude (NAD 83)	97° 10' 24.0" W
Ground Elevation (AMSL)	2.13 m / 7.0 ft
Antenna Centerline (AGL)	60.66 m / 199.0 ft
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-24.96 (dBW/4 kHz)

Transmit 6.1 GHz

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
0	0.00	121.86	-10.00	113.70
5	0.00	120.54	-10.00	113.70
10	0.00	118.99	-10.00	113.70
15	0.00	117.22	-10.00	113.70
20	0.00	115.26	-10.00	113.70
25	0.00	113.13	-10.00	113.70
30	0.00	110.84	-10.00	113.70
35	0.00	108.43	-10.00	113.70
40	0.00	105.91	-10.00	113.70
45	0.00	103.30	-10.00	113.70
50	0.00	100.61	-10.00	113.70
55	0.00	97.86	-10.00	113.70
60	0.00	95.07	-10.00	113.70
65	0.00	92.26	-10.00	113.70
70	0.00	89.44	-10.00	113.70
75	0.00	86.61	-10.00	113.70
80	0.00	83.81	-10.00	113.70
85	0.00	81.03	-10.00	113.70
90	0.00	78.31	-10.00	113.70
95	0.00	75.65	-10.00	113.70
100	0.00	73.07	-10.00	113.70
105	0.00	70.59	-10.00	113.70
110	0.00	68.23	-10.00	113.70
115	0.00	66.00	-10.00	113.70
120	0.00	63.93	-10.00	113.70
125	0.00	62.05	-10.00	113.70
130	0.00	60.36	-10.00	113.70
135	0.00	58.90	-10.00	113.70
140	0.00	57.68	-10.00	113.70
145	0.00	56.73	-10.00	113.70
150	0.00	56.05	-10.00	113.70
155	0.00	55.67	-10.00	113.70
160	0.00	55.58	-10.00	113.70
165	0.00	55.78	-10.00	113.70
170	0.00	56.29	-10.00	113.70
175	0.00	57.08	-10.00	113.70
180	0.00	58.14	-10.00	113.70
185	0.00	59.46	-10.00	113.70

COMSEARCH

Earth Station Data Sheet

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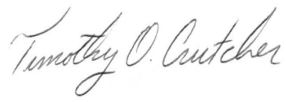
Coordination Values	**INGLESIDE, TX**
Licensee Name	PETROCOM LICENSE CORP.
Latitude (NAD 83)	27° 52' 5.0" N
Longitude (NAD 83)	97° 10' 24.0" W
Ground Elevation (AMSL)	2.13 m / 7.0 ft
Antenna Centerline (AGL)	60.66 m / 199.0 ft
Antenna Mode	Transmit 6.1 GHz
Interference Objectives: Long Term	-154.0 dBW/4 kHz 20%
Short Term	-131.0 dBW/4 kHz 0.0025%
Max Available RF Power	-24.96 (dBW/4 kHz)

		Transmit 6.1 GHz		
Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Horizon Gain (dBi)	Coordination Distance (km)
190	0.00	61.01	-10.00	113.70
195	0.00	62.78	-10.00	113.70
200	0.00	64.74	-10.00	113.70
205	0.00	66.87	-10.00	113.70
210	0.00	69.16	-10.00	113.70
215	0.00	71.57	-10.00	113.70
220	0.00	74.09	-10.00	113.70
225	0.00	76.70	-10.00	113.70
230	0.00	79.39	-10.00	113.70
235	0.00	82.14	-10.00	113.70
240	0.00	84.93	-10.00	113.70
245	0.00	87.74	-10.00	113.70
250	0.00	90.56	-10.00	113.70
255	0.00	93.39	-10.00	113.70
260	0.00	96.19	-10.00	113.70
265	0.00	98.97	-10.00	113.70
270	0.00	101.69	-10.00	113.70
275	0.00	104.35	-10.00	113.70
280	0.00	106.93	-10.00	113.70
285	0.00	109.41	-10.00	113.70
290	0.00	111.77	-10.00	113.70
295	0.00	114.00	-10.00	113.70
300	0.00	116.07	-10.00	113.70
305	0.00	117.95	-10.00	113.70
310	0.00	119.64	-10.00	113.70
315	0.00	121.10	-10.00	113.70
320	0.00	122.32	-10.00	113.70
325	0.00	123.27	-10.00	113.70
330	0.00	123.95	-10.00	113.70
335	0.00	124.33	-10.00	113.70
340	0.00	124.42	-10.00	113.70
345	0.00	124.22	-10.00	113.70
350	0.00	123.71	-10.00	113.70
355	0.00	122.92	-10.00	113.70

Certification

I hereby certify that I am the technically qualified person responsible for the preparation of the frequency coordination data contained in this report. I am familiar with Parts 101 and 25 of the FCC Rules and Regulations and I have either prepared or reviewed the frequency coordination data submitted with this report, and that it is complete and correct to the best of my knowledge and belief.



Timothy O. Crutcher
Frequency Planner
COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, VA 20147

DATED: March22, 2007

Analysis of Non-Ionizing Radiation for a 2.4-Meter Earth Station System

This report analyzes the non-ionizing radiation levels for a 2.4-meter earth station system. The analysis and calculations performed in this report comply with the methods described in the FCC Office of Engineering and Technology Bulletin, No. 65 first published in 1985 and revised in 1997 in Edition 97-01. The radiation safety limits used in the analysis are in conformance with the FCC R&O 96-326. Bulletin No. 65 and the FCC R&O specifies that there are two separate tiers of exposure limits that are dependant on the situation in which the exposure takes place and/or the status of the individuals who are subject to the exposure. The Maximum Permissible Exposure (MPE) limits for persons in a General Population/Uncontrolled environment are shown in Table 1. The General Population/Uncontrolled MPE is a function of transmit frequency and is for an exposure period of thirty minutes or less. The MPE limits for persons in an Occupational/Controlled environment are shown in Table 2. The Occupational MPE is a function of transmit frequency and is for an exposure period of six minutes or less. The purpose of the analysis described in this report is to determine the power flux density levels of the earth station in the far-field, near-field, transition region, between the subreflector or feed and main reflector surface, at the main reflector surface, and between the antenna edge and the ground and to compare these levels to the specified MPEs.

Table 1. Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm^2)
30-300	0.2
300-1500	Frequency (MHz)*(0.8/1200)
1500-100,000	1.0

Table 2. Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm^2)
30-300	1.0
300-1500	Frequency (MHz)*(4.0/1200)
1500-100,000	5.0

Table 3. Formulas and Parameters Used for Determining Power Flux Densities

Parameter	Symbol	Formula	Value	Units
Antenna Diameter	D	Input	2.4	m
Antenna Surface Area	$A_{surface}$	$\pi D^2 / 4$	4.52	m^2
Feed Flange Diameter	D_{fa}	Input	9.1	cm
Area of Feed Flange	A_{fa}	$\pi D_{fa}{}^2/4$	65.61	cm^2
Frequency	F	Input	6197	MHz
Wavelength	λ	300 / F	0.048411	m
Transmit Power	P	Input	11.25	W
Antenna Gain (dBi)	G_{es}	Input	41.7	dBi
Antenna Gain (factor)	G	$10^{Ges/10}$	14791.1	n/a
Pi	π	Constant	3.1415927	n/a
Antenna Efficiency	η	$G\lambda^2/(\pi^2D^2)$	0.61	n/a

1. Far Field Distance Calculation

The distance to the beginning of the far field can be determined from the following equation:

Distance to the Far Field Region

$$R_{ff} = 0.60\ D^2 / \lambda \quad (1)$$
$$= 71.4\ m$$

The maximum main beam power density in the far field can be determined from the following equation:

On-Axis Power Density in the Far Field

$$S_{ff} = G\ P / (4\ \pi\ R_{ff}^{\ 2}) \quad (2)$$
$$= 2.598\ W/m^2$$
$$= 0.260\ mW/cm^2$$

2. Near Field Calculation

Power flux density is considered to be at a maximum value throughout the entire length of the defined Near Field region. The region is contained within a cylindrical volume having the same diameter as the antenna. Past the boundary of the Near Field region, the power density from the antenna decreases linearly with respect to increasing distance.

The distance to the end of the Near Field can be determined from the following equation:

Extent of the Near Field

$$R_{nf} = D^2 / (4\ \lambda) \quad (3)$$
$$= 29.7\ m$$

The maximum power density in the Near Field can be determined from the following equation:

Near Field Power Density

$$S_{nf} = 16.0\ \eta\ P / (\pi\ D^2) \quad (4)$$
$$= 6.065\ W/m^2$$
$$= 0.607\ mW/cm^2$$

3. Transition Region Calculation

The Transition region is located between the Near and Far Field regions. The power density begins to decrease linearly with increasing distance in the Transition region. While the power density decreases inversely with distance in the Transition region, the power density decreases inversely with the square of the distance in the Far Field region. The maximum power density in the Transition region will not exceed that calculated for the Near Field region. The power density calculated in Section 1 is the highest power density the antenna can produce in any of the regions away from the antenna. The power density at a distance R_t can be determined from the following equation:

Transition Region Power Density

$$S_t = S_{nf}\ R_{nf} / R_t \quad (5)$$
$$= 0.607\ mW/cm^2$$

4. Region between the Feed Assembly and the Antenna Reflector

Transmissions from the feed assembly are directed toward the antenna reflector surface, and are confined within a conical shape defined by the type of feed assembly. The most common feed assemblies are waveguide flanges, horns or subreflectors. The energy between the feed assembly and reflector surface can be calculated by determining the power density at the feed assembly surface. This can be determined from the following equation:

Power Density at the Feed Flange

$$S_{fa} = 4000\ P / A_{fa} = 685.852\ mW/cm^2 \quad (6)$$

5. Main Reflector Region

The power density in the main reflector is determined in the same manner as the power density at the feed assembly. The area is now the area of the reflector aperture and can be determined from the following equation:

Power Density at the Reflector Surface

$$S_{surface} = 4\ P / A_{surface} = 9.947\ W/m^2 = 0.995\ mW/cm^2 \quad (7)$$

6. Region between the Reflector and the Ground

Assuming uniform illumination of the reflector surface, the power density between the antenna and the ground can be determined from the following equation:

Power Density between Reflector and Ground

$$S_g = P / A_{surface} = 2.487\ W/m^2 = 0.249\ mW/cm^2 \quad (8)$$

7. Summary of Calculations

Table 4. Summary of Expected Radiation levels for Uncontrolled Environment

Region		Calculated Maximum Radiation Power Density Level (mW/cm^2)	Hazard Assessment
1. Far Field (R_{ff} = 71.4 m)	S_{ff}	0.260	Satisfies FCC MPE
2. Near Field (R_{nf} = 29.7 m)	S_{nf}	0.607	Satisfies FCC MPE
3. Transition Region ($R_{nf} < R_t < R_{ff}$)	S_t	0.607	Satisfies FCC MPE
4. Between Feed Assembly and Antenna Reflector	S_{fa}	685.852	Potential Hazard
5. Main Reflector	$S_{surface}$	0.995	Satisfies FCC MPE
6. Between Reflector and Ground	S_g	0.249	Satisfies FCC MPE

Table 5. Summary of Expected Radiation levels for Controlled Environment

Region		Calculated Maximum Radiation Power Density Level (mW/cm^2)	Hazard Assessment
1. Far Field (R_{ff} = 71.4 m)	S_{ff}	0.260	Satisfies FCC MPE
2. Near Field (R_{nf} = 29.7 m)	S_{nf}	0.607	Satisfies FCC MPE
3. Transition Region ($R_{nf} < R_t < R_{ff}$)	S_t	0.607	Satisfies FCC MPE
4. Between Feed Assembly and Antenna Reflector	S_{fa}	685.852	Potential Hazard
5. Main Reflector	$S_{surface}$	0.995	Satisfies FCC MPE
6. Between Reflector and Ground	S_g	0.249	Satisfies FCC MPE

It is the applicant's responsibility to ensure that the public and operational personnel are not exposed to harmful levels of radiation.

8. Conclusions

Based on the above analysis it is concluded that harmful levels of radiation will not exist in regions normally occupied by the public or the earth station's operating personnel. The transmitter will be turned off during antenna maintenance so that the FCC MPE of 5.0 mW/cm2 will be complied with for those regions with close proximity to the reflector that exceed acceptable levels.

FCC 312
Schedule B

FEDERAL COMMUNICATIONS COMMISSION
APPLICATION FOR SATELLITE SPACE AND EARTH STATION AUTHORIZATIONS
Technical and Operational Description)

(Place an "X" in one of the blocks below)

☒ Technical Exhibit in support of STA request

B1. Location of Earth Station Site. If temporary-fixed, mobile, or VSAT remote facility, specify area of operation and point of contact. If VSAT hub station, give its location For VSAT networks attach individual Schedule B, Page 1 sheets for each hub station and each remote station. Individually provide the Location, Points of Communications, and Destination Points for each hub and remote station.

B1a. Station Call Sign	B1b. Site identifier (HUB, REMOTE1, etc.)	B1c. Telephone Number	B1j. Geographic Coordinates N/S, Deg. - Min. - Sec. - E/W	B1k. Lat./Lon. Coordinates are:
		(504)-736-9400	Lat. 27° - 52' - 05.0" N Lon. 97° - 10' - 24.0" W	☐ NAD-27 ☒ NAD-83

B1d. Mailing Street Address of Station or Area of Operation	B1e. Name of Contact Person
GMF Tahiti	Jon Denton

B1f. City	B1g. County	B1h. State	B1i. Zip Code	B1l. Site Elevation (AMSL)
Ingleside	San Patricio	TX	78362	2.13

B2. Points of Communications: List the names and orbit locations of all satellites with which this earth station will communicate. The entry "ALSAT" is sufficient to identify the names and locations of all satellite facilities licensed by the U.S. All non-U.S. licensed satellites must be listed individually.

Satellite Name and Orbit Location	Satellite Name and Orbit Location	Satellite Name and Orbit Location
AMC-3 @ 87º		

B3. Destination points for communications using non-U.S. licensed satellites – N/A.

FCC Form 312 - Schedule B: (Technical and Operational Description)

B4. Earth Station Antenna Facilities: Use additional pages as needed.

(a) Site ID*	(b) Antenna ID**	(c) Quantity	(d) Manufacturer	(e) Model	(f) Antenna Size (meters)	(g) Antenna Gain Transmit and/or Receive (_____dBi at_____GHz)
	2.4M	1	SEATEL	9797	2.4	41.7 dBi @ 6 GHz

B5. Antenna Heights and Maximum Power Limits: (The corresponding Antenna ID in tables B4 and B5 applies to the same antenna)

(a) Antenna ID**	(b) Antenna Structure Registration No.	Maximum Antenna Height (c) Above Ground Level (meters)	Maximum Antenna Height (d) Above Mean Sea Level (meters)	(e) Building Height Above Ground Level (meters)***	(f) Maximum Antenna Height Above Rooftop (meters)***	(g) Total Input Power at antenna flange (Watts)	(h) Total EIRP for all carriers (dBW)
2.4M		62.43	64.56	59.43	3.0	11.25	55.2

FCC Form 312 - Schedule B: (Technical and Operational Description)

B6. Frequency Coordination Limits: Use additional pages as needed.

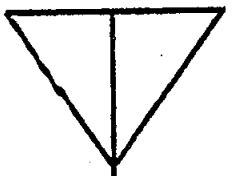
(a) Antenna ID*	(b) Frequency Limits (MHz)	(c) Range of Satellite Arc Eastern Limit**	(d) Range of Satellite Arc Western Limit**	(e) Antenna Elevation Angle Eastern Limit	(f) Antenna Elevation Angle Western Limit	(g) Earth Station Azimuth Angle Eastern Limit	(h) Earth Station Azimuth Angle Western Limit	(i) Maximum EIRP Density toward the Horizon (dBW/4kHz)
2.4M	5925.00 – 5959.75	87.0º W	87.0º W	55.6º	55.6º	159.0º	159.0º	-34.96
2.4M	5989.95 – 6211.79	87.0º W	87.0º W	55.6º	55.6º	159.0º	159.0º	-34.96
2.4M	6241.99 – 6425.00	87.0º W	87.0º W	55.6º	55.6º	159.0º	159.0º	-34.96

B7. Particulars of Operation (Full particulars are required for each r.f. carrier): Use additional pages as needed.

(a) Antenna ID*	(b) Frequency Limits (MHz)	(c) T/R Mode **	(d) Antenna Polarization (H,V,L,R)	(e) Emission Designator	(f) Maximum EIRP per Carrier (dBW)	(g) Maximum EIRP Density per Carrier (dBW/4kHz)	(h) Description of Modulation and Services
2.4M	5925.00 – 5959.75	T	H,V	960KG7D	40.54	16.74	Digital, QPSK, ¾ FEC, 1.2 Mbps
2.4M	5989.95 – 6211.79	T	H,V	960KG7D	40.54	16.74	Digital, QPSK, ¾ FEC, 1.2 Mbps
2.4M	6241.99 – 6425.00	T	H,V	960KG7D	40.54	16.74	Digital, QPSK, ¾ FEC, 1.2 Mbps

FCC Form 312 - Schedule B: (Technical and Operational Description)

B8. If the proposed antenna(s) operate in the Fixed Satellite Service (FSS) with **geostationary** satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a) and (b) as demonstrated by the manufacturer's qualification measurements? If NO, provide as an exhibit, a technical analysis showing compliance with two-degree spacing policy.	☐ **YES** ☒ **NO**
B9. If the proposed antenna(s) do not operate in the Fixed Satellite Service (FSS), or if they operate in the Fixed Satellite Service (FSS) with **non-geostationary** satellites, do(es) the proposed antenna(s) comply with the antenna gain patterns specified in Section 25.209(a2) and (b) as demonstrated by the manufacturer's qualification measurement?	☐ **YES** N/A ☐ **NO**
B11. Is frequency coordination required? If YES, attach a frequency coordination report as an exhibit.	☒ **YES** ☐ **NO**
B12. Is coordination with another country required? If YES, attach the name of the country(ies) and plot of coordination contours as an exhibit.	☐ **YES** ☒ **NO**
B13. FAA Notification - (See 47 CFT Part 17and 47 CFT Part 25.113(c))	☐ **YES** ☒ **NO**



ELECTRICAL TEST REPORT

Performance Optimized 2.4 Meter Offset Antenna Non-Scanning C-Band Linear Polarized

PREPARED FOR:

Sea-Tel Inc.
1035 Shary Court
Concord, CA 94518

Authorization P.O. #30100

Report No. 9814-710

9883-700

January, 1999

SEAVEY ENGINEERING ASSOCIATES, INC.
135 King Street, Cohasset, MA 02025
(781) 383-9722 • FAX (781) 383-2089
E-Mail: info@seaveyantenna.com Web Site: http://www.seaveyantenna.com

Doc #117366-0

INTRODUCTION:

This report summarizes the electrical testing performed on a 2.4 meter modified offset antenna. The testing has been completed for Sea-Tel, Incorporated per purchase order # 30100.

DESCRIPTION OF TEST ARTICLE:

The antenna tested is comprised of a reflector a feed and a spar set.

The reflector was designed for efficient use of a specified existing Sea-Tel radome configuration. Refer to Seavey Engineering drawing 9814-08 for reflector details. The manufactured reflector was supplied to Seavey Engineering by Sea-Tel.

The feed is a dual ~~circularly~~ linearly polarized transmit and receive C-band assembly. Refer to Seavey Engineering drawing 9814-800 for feed details.

There are three spars to position the feed correctly in the reflector. Refer to Seavey Engineering drawing 9814-550 for spar details

TESTS PERFORMED:

The antenna has undergone testing for radiation patterns, gain and cross polarization. The radiation patterns were taken on Seavey Engineering's 850-foot antenna test range. The antenna under test was mounted to a three-axis positioner on top of a 30-foot test tower. The transmitting source antenna was a 7-foot solid parabolic reflector. The data has been recorded on a standard Scientific-Atlanta chart recorder.

Gain data was taken using the substitution method. The gain standard for the receive band is a Narda #643 horn. The gain standard for the transmit band is a Narda #642 horn.

SPECIFICATIONS:

Frequency:	3.7 – 4.2 GHz Receive Band
	5.85 – 6.425 GHz Transmit Band
Polarization:	Dual Linear
Cross-Pol:	27 dB, minimum, Transmit Band
	27 dB, minimum, Receive Band (recommended)
Sidelobe:	Compliance to Intelsat Standard G
VSWR:	1.3:1

TEST RESULTS:

The antenna complies with or exceeds the specifications listed above.
Figures 1-24 show the secondary radiation patterns for the antenna.
Figures 25 and 30 show the measured cross polarization data.

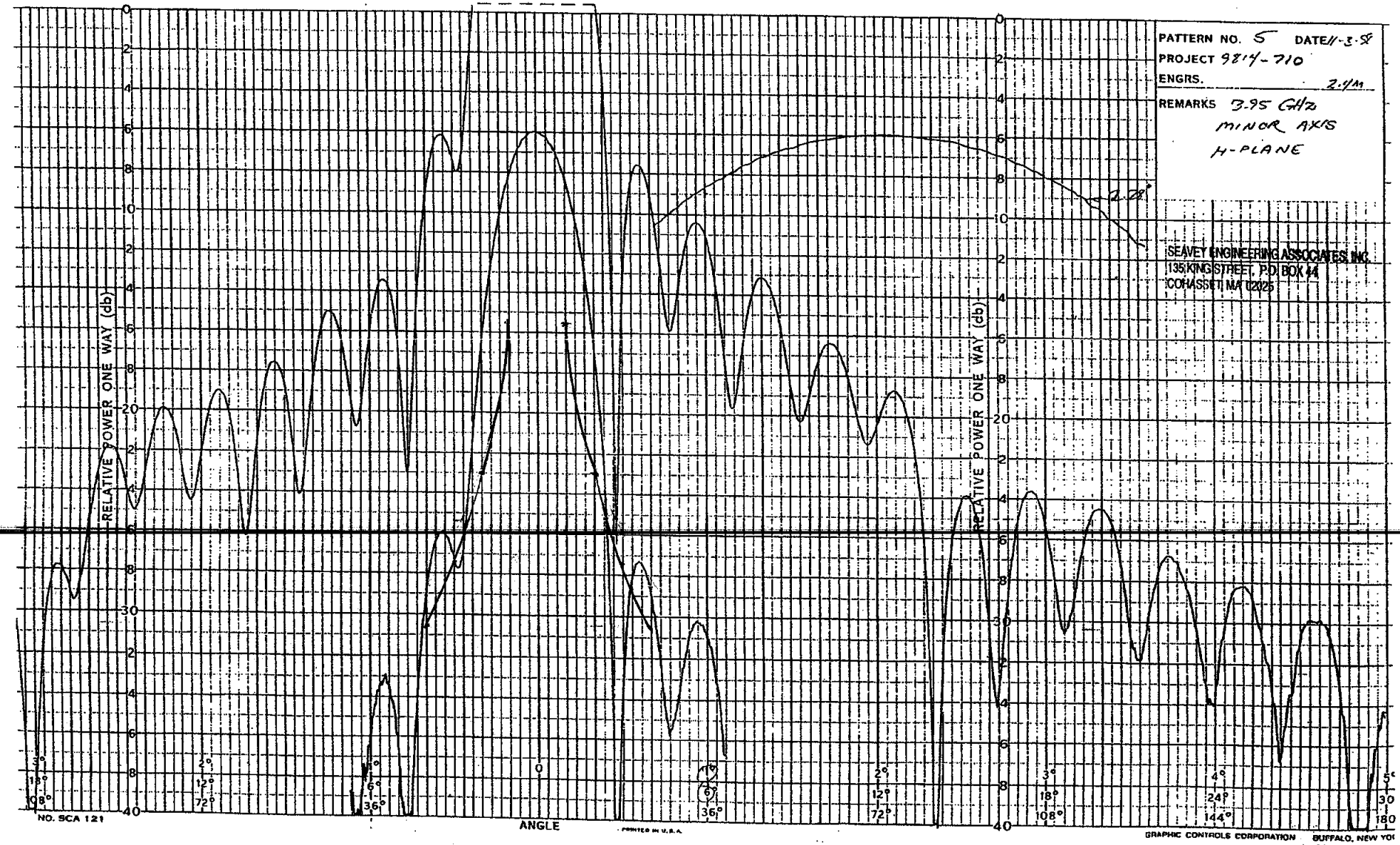
The table below summarizes the beamwidth, on axis cross polarization and gain data at all test frequencies.

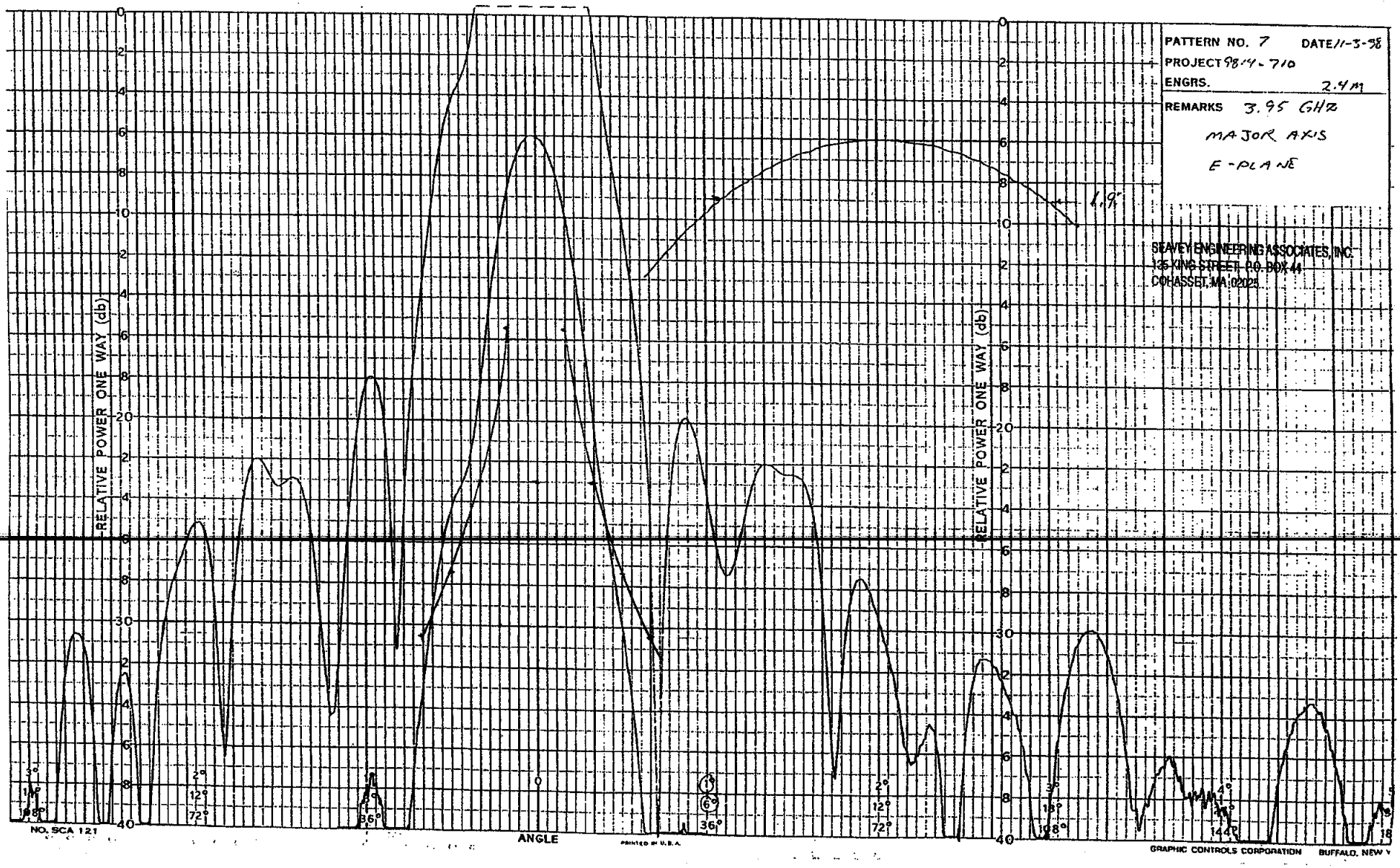
Receive Band
Data Summary Table

Frequency	3.7 GHz	3.95 GHz	4.2 GHz
3 dB BW H minor	2.4°	2.3°	2.1°
3 dB BW E major	2.0°	1.9°	1.8°
Cross-Pol	25 dB	27 dB	38 dB
Gain	38.9 dBil	38.5 dBil	39.0 dBil

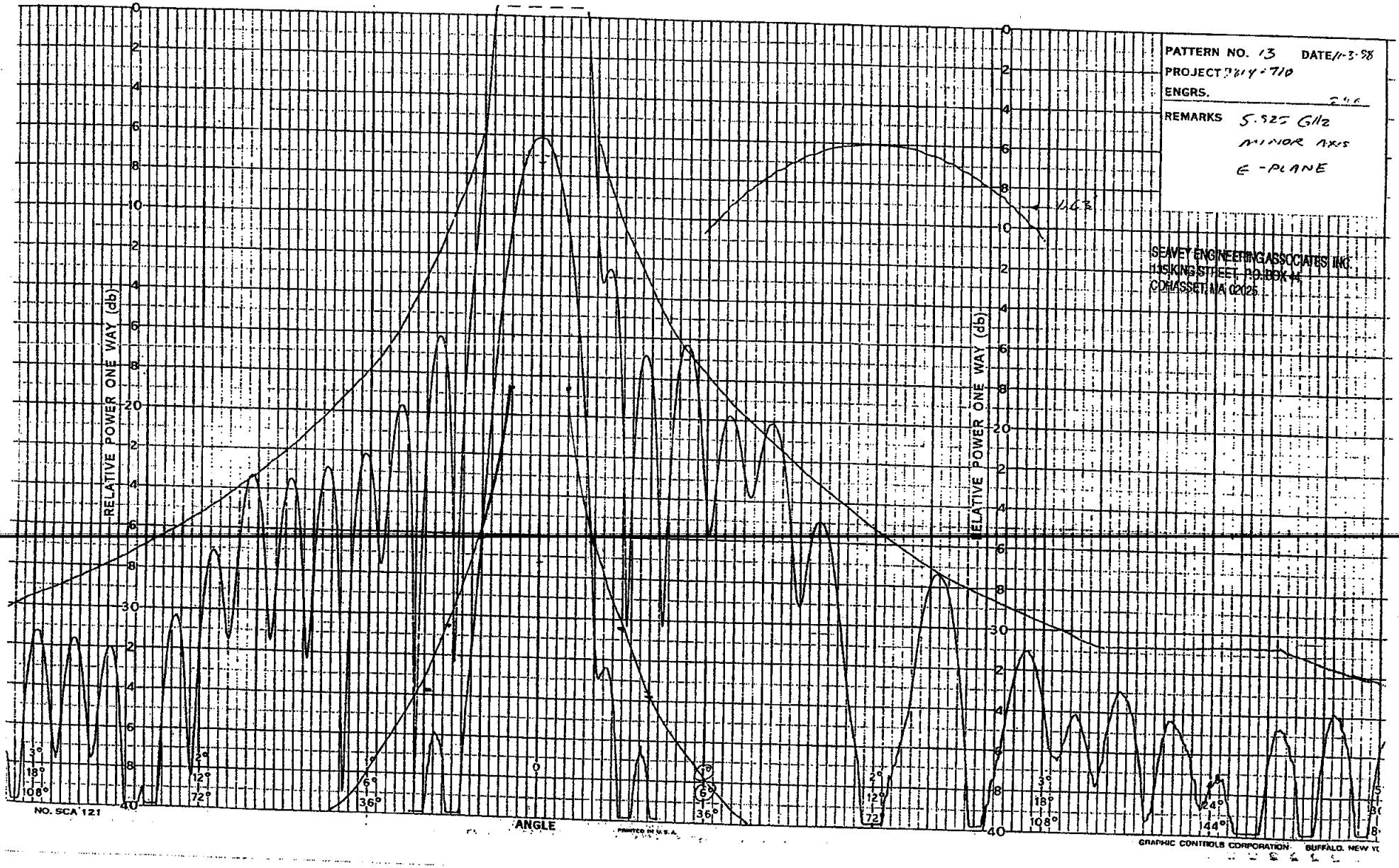
Transmit Band
Data Summary Table

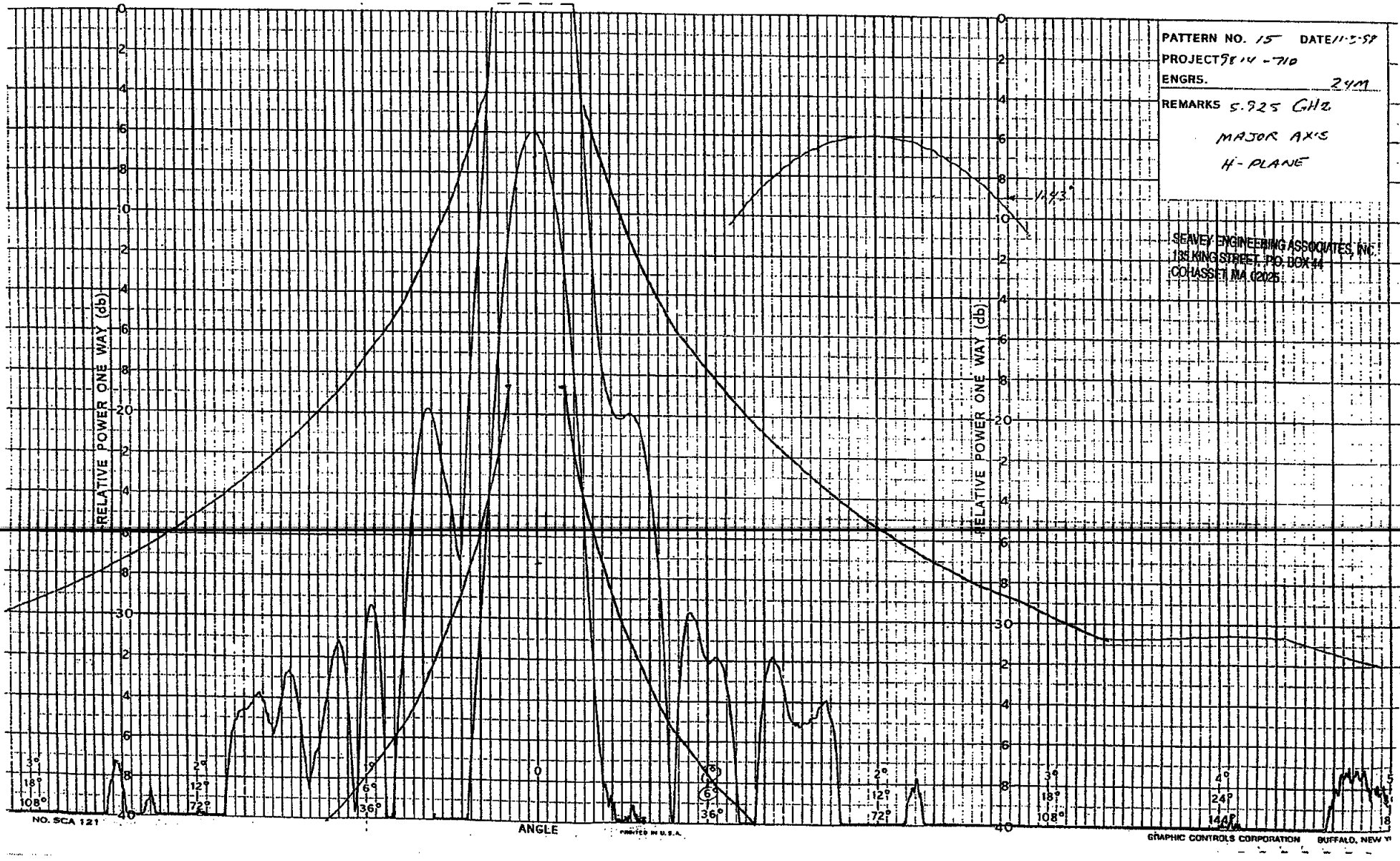
Frequency	5.925 GHz	6.175 GHz	6.425 GHz
3 dB BW E minor	1.6°	1.6°	1.5°
3 dB BW H major	1.4°	1.3°	1.33°
Cross-Pol	35 dB	34 dB	28 dB
Gain	41.3 dBil	41.9 dBil	41.7 dBil

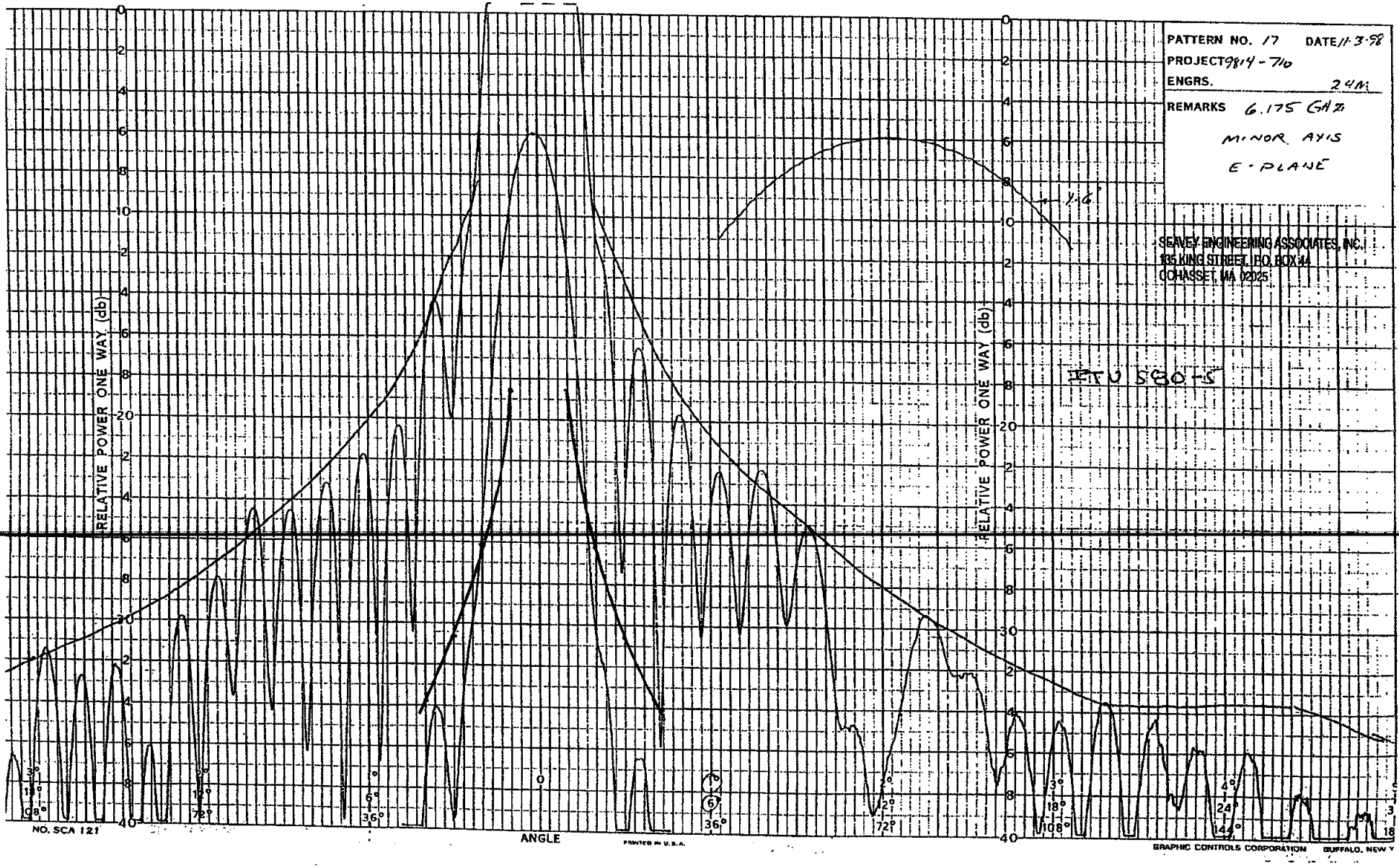

PATTERN NO. 5 DATE 11-3-78
PROJECT 9814-710
ENGRS. Z.H.M
REMARKS 3.95 GHz
MINOR AXIS
H-PLANE
2.28°
SEAVEY ENGINEERING ASSOCIATES, INC.
135 KING STREET, P.O. BOX 44
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
ANGLE
NO. SCA 121
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YO

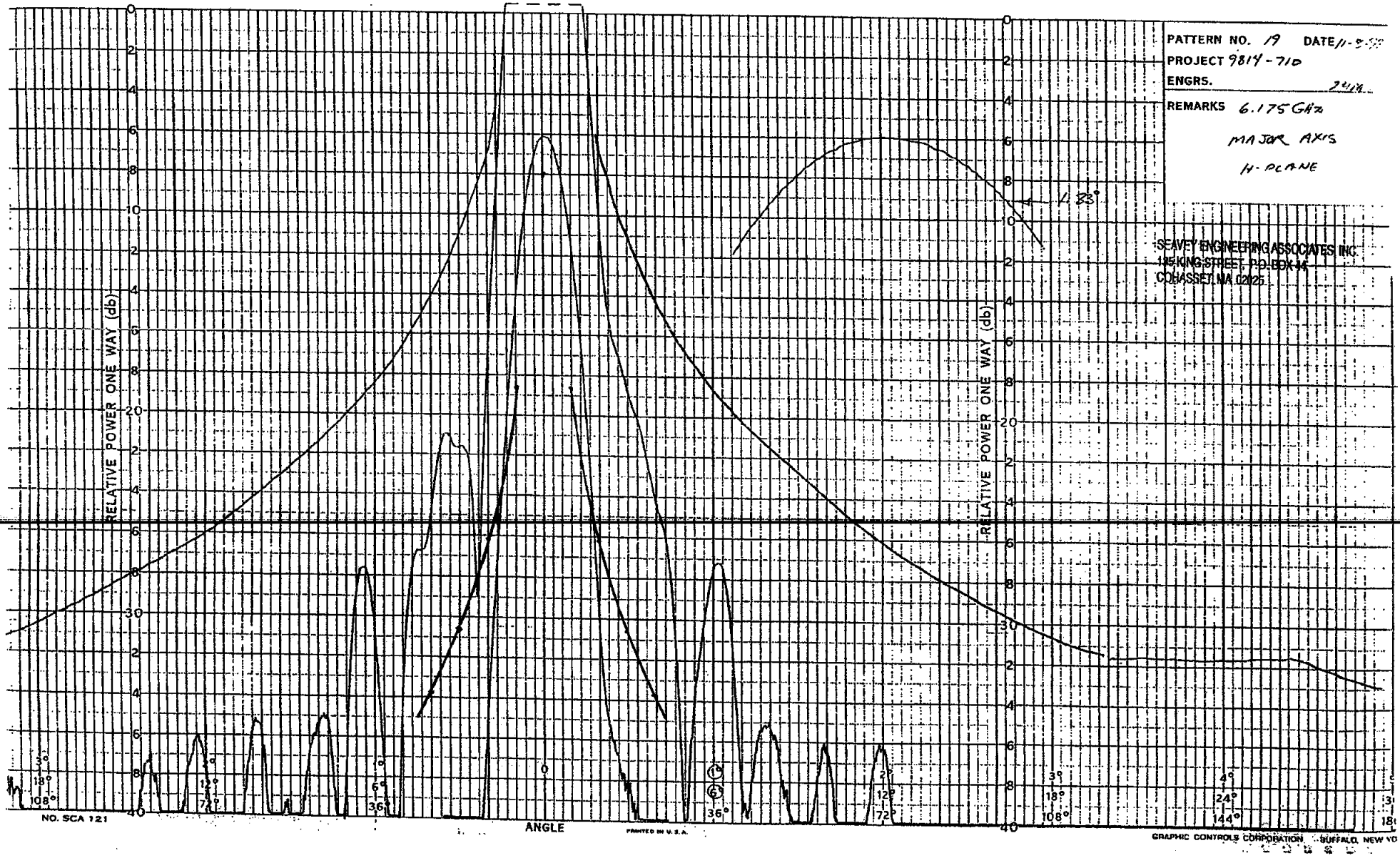

PATTERN NO. 7 DATE 11-3-98
PROJECT 9814-710
ENGRS. 2.4M
REMARKS 3.95 GHz
MAJOR AXIS
E-PLANE
1.9°
SEAVEY ENGINEERING ASSOCIATES, INC.
135 KING STREET, P.O. BOX 44
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
ANGLE
NO. SCA 121
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW Y

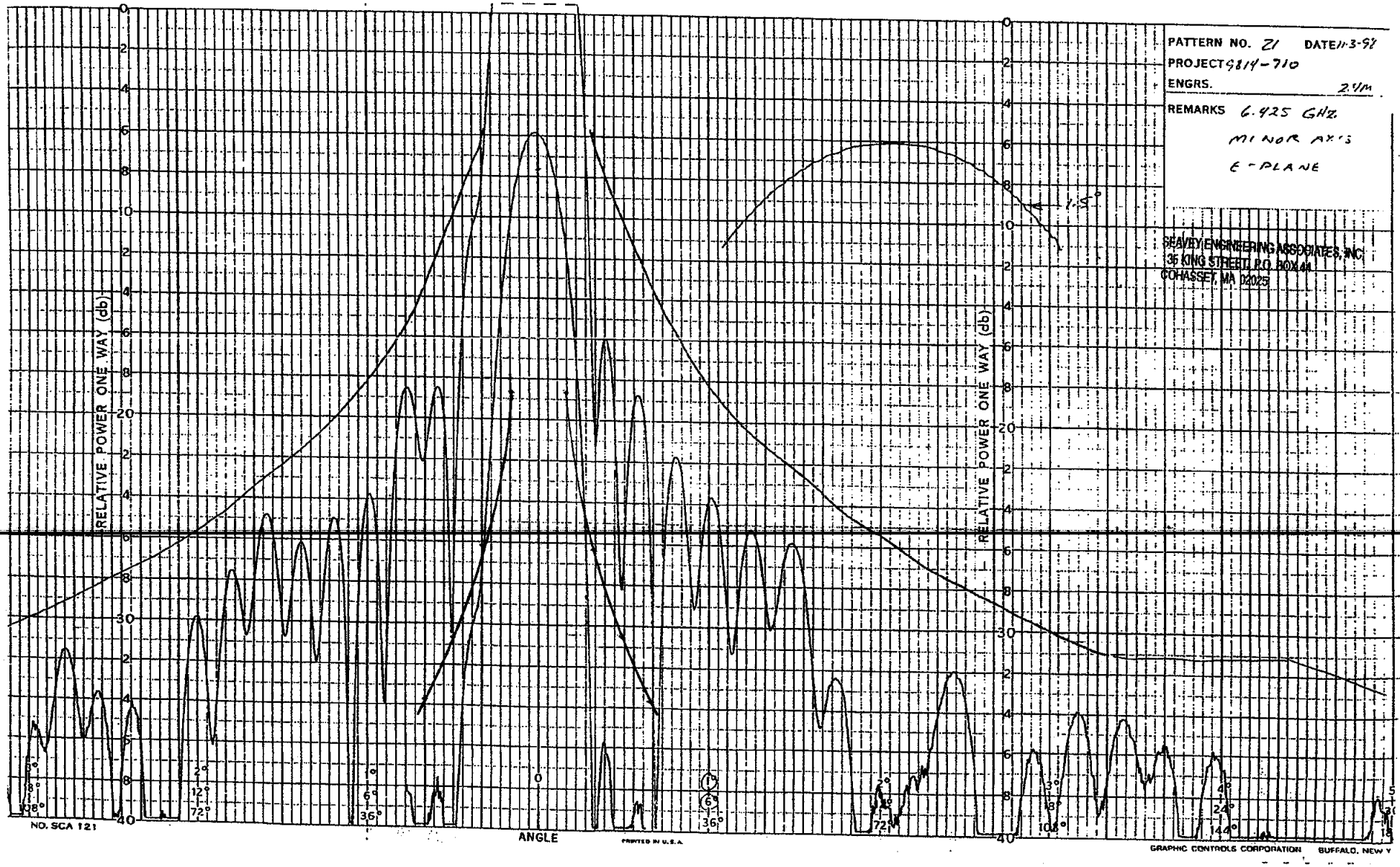

PATTERN NO. 11 DATE 11-3-58
PROJECT 5814-710
ENGRS. 2-4 M
REMARKS 4.2 GHz
MAJOR AXIS
E-PLANE
SEAVEY ENGINEERING ASSOCIATES, INC.
135 KING STREET, P.O. BOX 44
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
ANGLE
NO. SCA 121
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YORK
PRINTED IN U.S.A.

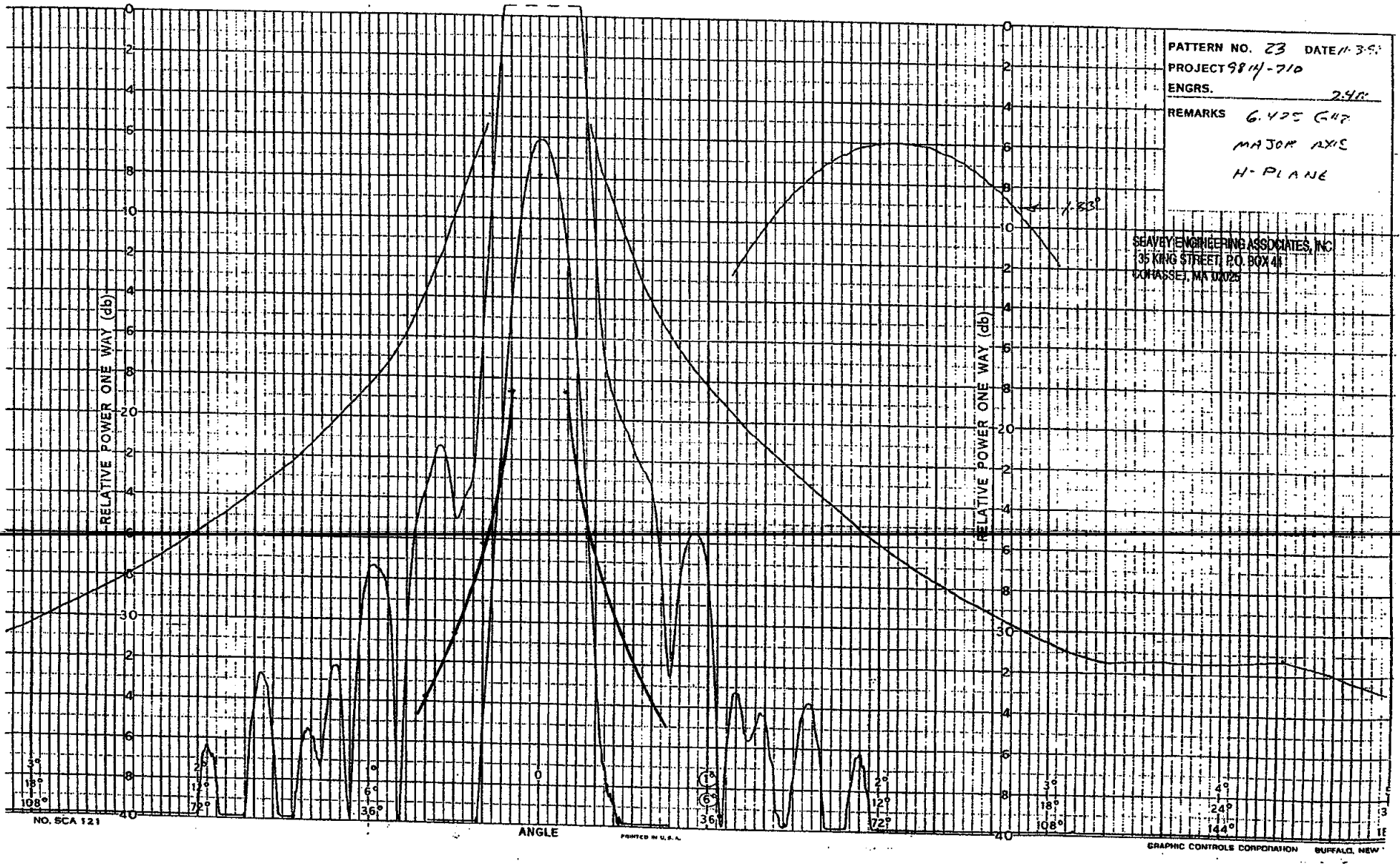

PATTERN NO. 13 DATE 11-3-98
PROJECT DDY-710
ENGRS. EHA
REMARKS 5.525 GHz
MINOR AXIS
E-PLANE
SEAVEY ENGINEERING ASSOCIATES INC.
115 KING STREET, P.O. BOX 44
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
ANGLE
NO. SCA 121
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YORK
PRINTED IN U.S.A.


PATTERN NO. 15 DATE 11-5-58
PROJECT 9814-710
ENGRS. ZYM
REMARKS 5.925 GHz
MAJOR AXIS
H-PLANE
SEAVEY ENGINEERING ASSOCIATES, INC.
135 KING STREET, P.O. BOX 44
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
ANGLE
NO. SCA 121
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW Y
PRINTED IN U.S.A.


PATTERN NO. 17 DATE 11-3-98
PROJECT 9814-710
ENGRS. 24M
REMARKS 6.175 GHz
MINOR AXIS
E-PLANE
SEAVEY ENGINEERING ASSOCIATES, INC.
135 KING STREET, PO BOX 44
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
ANGLE
NO. SCA 121
PRINTED IN U.S.A.
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW Y


PATTERN NO. 19 DATE 11-8-
PROJECT 9814-710
ENGRS. JHH
REMARKS 6.175 GHz
MAJOR AXIS
H-PLANE
SEAVEY ENGINEERING ASSOCIATES INC.
125 KING STREET, P.O. BOX 44
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
RELATIVE POWER ONE WAY (db)
L 83°
ANGLE
NO. SCA 121
PRINTED IN U.S.A.
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW YO


PATTERN NO. 21 DATE 11-3-97
PROJECT 9814-710
ENGRS. J.V.M.
REMARKS 6.925 GHz.
MINOR AXIS
E-PLANE
SEAVEY ENGINEERING ASSOCIATES, INC.
35 KING STREET, P.O. BOX 444
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
ANGLE
NO. SCA 121
PRINTED IN U.S.A.
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW Y


PATTERN NO. 23 DATE 11-3-81
PROJECT 9814-710
ENGRS. 24R
REMARKS 6.425 GHz
MAJOR AXIS
H-PLANE
SEAVEY ENGINEERING ASSOCIATES, INC.
35 KING STREET, P.O. BOX 41
COHASSET, MA 02025
RELATIVE POWER ONE WAY (db)
ANGLE
NO. SCA 121
GRAPHIC CONTROLS CORPORATION BUFFALO, NEW

Data in support of claim that proposed operation meets off-axis criteria of 1986 Declaratory Order

ID **Applicant:** Petrocom **Date of Application:** 03/22/07

HEADING

a1	**Antenna Manufacturer:**	SeaTel	***c***	**main bore gain**	41.70	**dBi**
a2	**Antenna Model:**	2.4m	***d***	**frequency at which gain was measured**	6.18	**GHz**
a3	**Antenna ID:**	Ant1	***e***	**maximum input power density (dBw/4KHz)**	-24.96	**dBw/4Khz**
b	**Transmit band (b):**	5.925 GHz				

1.0 to 7 degrees calculated maximum difference in off-axis eirp density: **-14.53** **dBw/4Khz**

TABLE ***1.0 to 180 degrees calculated maximum difference in off-axis eirp density:*** **-14.53**

EIRP for Antenna Conforming to 25.209(a) operating at 25.212 power density limits			**Gain and EIRP for Antenna Not Conforming to 25.209(a) operating at stated maximum power density**			
1	**2**	**3**	**4**	**5**	**6**	**7**
Angle (degrees)	**25.209 Gain (dBi)**	**Off-Axis EIRP Density for -2.70 dBw/4Kz**	**Gain relative to main bore gain (dB)**	**Actual Gain in dBi**	**Off-Axis EIRP Density for input of -24.96**	**Difference in Off-Axis EIRP Density (6) minus (3)**
1.00	**29.00**	**26.30**	-5.00	36.70	11.74	-14.56
1.10	**27.97**	**25.27**	-6.00	35.70	10.74	-14.53
1.20	**27.02**	**24.32**	-7.00	34.70	9.74	-14.58
1.25	**26.58**	**23.88**	-7.50	34.20	9.24	-14.64
1.30	**26.15**	**23.45**	-8.00	33.70	8.74	-14.71
1.40	**25.35**	**22.65**	-9.05	32.65	7.69	-14.96
1.50	**24.60**	**21.90**	-10.10	31.60	6.64	-15.26
1.60	**23.90**	**21.20**	-11.15	30.55	5.59	-15.61
1.70	**23.24**	**20.54**	-12.20	29.50	4.54	-16.00
1.80	**22.62**	**19.92**	-15.47	26.23	1.27	-18.64
1.90	**22.03**	**19.33**	-18.73	22.97	-1.99	-21.32
2.00	**21.47**	**18.77**	-22.00	19.70	-5.26	-24.03
2.10	**20.94**	**18.24**	-23.53	18.17	-6.79	-25.04
2.20	**20.44**	**17.74**	-25.07	16.63	-8.33	-26.07
2.30	**19.96**	**17.26**	-26.60	15.10	-9.86	-27.12
2.40	**19.49**	**16.79**	-26.73	14.98	-9.99	-26.78
2.50	**19.05**	**16.35**	-26.85	14.85	-10.11	-26.46
2.60	**18.63**	**15.93**	-26.98	14.73	-10.24	-26.16
2.70	**18.22**	**15.52**	-27.10	14.60	-10.36	-25.88
2.80	**17.82**	**15.12**	-29.07	12.63	-12.33	-27.45
2.90	**17.44**	**14.74**	-31.03	10.67	-14.29	-29.03
3.00	**17.07**	**14.37**	-33.00	8.70	-16.26	-30.63
3.33	**15.94**	**13.24**	-34.00	7.70	-17.26	-30.50
3.67	**14.88**	**12.18**	-31.00	10.70	-14.26	-26.44
4.00	**13.95**	**11.25**	-31.50	10.20	-14.76	-26.01
4.33	**13.09**	**10.39**	-38.00	3.70	-21.26	-31.65
4.67	**12.27**	**9.57**	-34.50	7.20	-17.76	-27.33
5.00	**11.53**	**8.83**	-31.70	10.00	-14.96	-23.79
5.33	**10.83**	**8.13**	-30.30	11.40	-13.56	-21.69
5.67	**10.16**	**7.46**	-32.00	9.70	-15.26	-22.72
6.00	**8.00**	**5.30**	-38.00	3.70	-21.26	-26.56
7.00	**8.00**	**5.30**	-34.00	7.70	-17.26	-22.56

Data in support of claim that proposed operation meets off-axis criteria of 1986 Declaratory Order

ID **Applicant:** Petrocom **Date of Application:** 03/22/07

HEADING

a1	**Antenna Manufacturer:**	SeaTel	***c***	**main bore gain**	41.70	**dBi**
a2	**Antenna Model:**	2.4m	***d***	**frequency at which gain was measured**	6.18	**GHz**
a3	**Antenna ID:**	Ant1	***e***	**maximum input power density (dBw/4KHz)**	-24.96	**dBw/4Khz**
b	**Transmit band (b):**	6.175 GHz				

1.0 to 7 degrees calculated maximum difference in off-axis eirp density: **-13.26** **dBw/4Khz**

TABLE ***1.0 to 180 degrees calculated maximum difference in off-axis eirp density:*** **-13.26**

EIRP for Antenna Conforming to 25.209(a) operating at 25.212 power density limits			**Gain and EIRP for Antenna Not Conforming to 25.209(a) operating at stated maximum power density**			
1	**2**	**3**	**4**	**5**	**6**	**7**
Angle (degrees)	**25.209 Gain (dBi)**	**Off-Axis EIRP Density for -2.70 dBw/4Kz**	**Gain relative to main bore gain (dB)**	**Actual Gain in dBi**	**Off-Axis EIRP Density for input of -24.96**	**Difference in Off-Axis EIRP Density (6) minus (3)**
1.00	**29.00**	**26.30**	-3.70	38.00	13.04	-13.26
1.10	**27.97**	**25.27**	-4.80	36.90	11.94	-13.33
1.20	**27.02**	**24.32**	-5.90	35.80	10.84	-13.48
1.25	**26.58**	**23.88**	-6.45	35.25	10.29	-13.59
1.30	**26.15**	**23.45**	-7.00	34.70	9.74	-13.71
1.40	**25.35**	**22.65**	-8.25	33.45	8.49	-14.16
1.50	**24.60**	**21.90**	-9.50	32.20	7.24	-14.66
1.60	**23.90**	**21.20**	-10.75	30.95	5.99	-15.21
1.70	**23.24**	**20.54**	-12.00	29.70	4.74	-15.80
1.80	**22.62**	**19.92**	-14.73	26.97	2.01	-17.91
1.90	**22.03**	**19.33**	-17.47	24.23	-0.73	-20.06
2.00	**21.47**	**18.77**	-20.20	21.50	-3.46	-22.23
2.10	**20.94**	**18.24**	-21.33	20.37	-4.59	-22.84
2.20	**20.44**	**17.74**	-22.47	19.23	-5.73	-23.47
2.30	**19.96**	**17.26**	-23.60	18.10	-6.86	-24.12
2.40	**19.49**	**16.79**	-23.83	17.88	-7.09	-23.88
2.50	**19.05**	**16.35**	-24.05	17.65	-7.31	-23.66
2.60	**18.63**	**15.93**	-24.28	17.43	-7.54	-23.46
2.70	**18.22**	**15.52**	-24.50	17.20	-7.76	-23.28
2.80	**17.82**	**15.12**	-24.97	16.73	-8.23	-23.35
2.90	**17.44**	**14.74**	-25.43	16.27	-8.69	-23.43
3.00	**17.07**	**14.37**	-25.90	15.80	-9.16	-23.53
3.33	**15.94**	**13.24**	-27.00	14.70	-10.26	-23.50
3.67	**14.88**	**12.18**	-28.50	13.20	-11.76	-23.94
4.00	**13.95**	**11.25**	-29.60	12.10	-12.86	-24.11
4.33	**13.09**	**10.39**	-30.60	11.10	-13.86	-24.25
4.67	**12.27**	**9.57**	-31.50	10.20	-14.76	-24.33
5.00	**11.53**	**8.83**	-32.30	9.40	-15.56	-24.39
5.33	**10.83**	**8.13**	-33.00	8.70	-16.26	-24.39
5.67	**10.16**	**7.46**	-33.40	8.30	-16.66	-24.12
6.00	**8.00**	**5.30**	-34.00	7.70	-17.26	-22.56
7.00	**8.00**	**5.30**	-36.70	5.00	-19.96	-25.26

Data in support of claim that proposed operation meets off-axis criteria of 1986 Declaratory Order

ID **Applicant:** Petrocom **Date of Application:** 03/22/07

HEADING

a1	**Antenna Manufacturer:**	SeaTel	***c***	**main bore gain**	41.70	**dBi**
a2	**Antenna Model:**	2.4m	***d***	**frequency at which gain was measured**	6.18	**GHz**
a3	**Antenna ID:**	Ant1	***e***	**maximum input power density (dBw/4KHz)**	-24.96	**dBw/4Khz**
b	**Transmit band (b):**	6.175 GHz				

1.0 to 7 degrees calculated maximum difference in off-axis eirp density: **-13.26** **dBw/4Khz**

TABLE ***1.0 to 180 degrees calculated maximum difference in off-axis eirp density:*** **-13.26**

EIRP for Antenna Conforming to 25.209(a) operating at 25.212 power density limits			**Gain and EIRP for Antenna Not Conforming to 25.209(a) operating at stated maximum power density**			
1	**2**	**3**	**4**	**5**	**6**	**7**
Angle (degrees)	**25.209 Gain (dBi)**	**Off-Axis EIRP Density for -2.70 dBw/4Kz**	**Gain relative to main bore gain (dB)**	**Actual Gain in dBi**	**Off-Axis EIRP Density for input of -24.96**	**Difference in Off-Axis EIRP Density (6) minus (3)**
1.00	**29.00**	**26.30**	-3.70	38.00	13.04	-13.26
1.10	**27.97**	**25.27**	-4.80	36.90	11.94	-13.33
1.20	**27.02**	**24.32**	-5.90	35.80	10.84	-13.48
1.25	**26.58**	**23.88**	-6.45	35.25	10.29	-13.59
1.30	**26.15**	**23.45**	-7.00	34.70	9.74	-13.71
1.40	**25.35**	**22.65**	-8.25	33.45	8.49	-14.16
1.50	**24.60**	**21.90**	-9.50	32.20	7.24	-14.66
1.60	**23.90**	**21.20**	-10.75	30.95	5.99	-15.21
1.70	**23.24**	**20.54**	-12.00	29.70	4.74	-15.80
1.80	**22.62**	**19.92**	-14.73	26.97	2.01	-17.91
1.90	**22.03**	**19.33**	-17.47	24.23	-0.73	-20.06
2.00	**21.47**	**18.77**	-20.20	21.50	-3.46	-22.23
2.10	**20.94**	**18.24**	-21.33	20.37	-4.59	-22.84
2.20	**20.44**	**17.74**	-22.47	19.23	-5.73	-23.47
2.30	**19.96**	**17.26**	-23.60	18.10	-6.86	-24.12
2.40	**19.49**	**16.79**	-23.83	17.88	-7.09	-23.88
2.50	**19.05**	**16.35**	-24.05	17.65	-7.31	-23.66
2.60	**18.63**	**15.93**	-24.28	17.43	-7.54	-23.46
2.70	**18.22**	**15.52**	-24.50	17.20	-7.76	-23.28
2.80	**17.82**	**15.12**	-24.97	16.73	-8.23	-23.35
2.90	**17.44**	**14.74**	-25.43	16.27	-8.69	-23.43
3.00	**17.07**	**14.37**	-25.90	15.80	-9.16	-23.53
3.33	**15.94**	**13.24**	-27.00	14.70	-10.26	-23.50
3.67	**14.88**	**12.18**	-28.50	13.20	-11.76	-23.94
4.00	**13.95**	**11.25**	-29.60	12.10	-12.86	-24.11
4.33	**13.09**	**10.39**	-30.60	11.10	-13.86	-24.25
4.67	**12.27**	**9.57**	-31.50	10.20	-14.76	-24.33
5.00	**11.53**	**8.83**	-32.30	9.40	-15.56	-24.39
5.33	**10.83**	**8.13**	-33.00	8.70	-16.26	-24.39
5.67	**10.16**	**7.46**	-33.40	8.30	-16.66	-24.12
6.00	**8.00**	**5.30**	-34.00	7.70	-17.26	-22.56
7.00	**8.00**	**5.30**	-36.70	5.00	-19.96	-25.26

SES AMERICOM
An SES GLOBAL Company

July 22, 2004

Federal Communications Commission
International Bureau
445 12th Street, SW
Washington, D.C. 20554

To Whom It May Concern:

This letter certifies that SES Americom, Inc. ("SES Americom") is aware that PetroCom License Corporation, ("PetroCom"), is filing to operate on the SES Americom satellite AMC-3 at 87° W.L. licensed by the Federal Communications Commission ("FCC"), using C-band transmit/receive antennas that are not strictly compliant with the FCC rules for off-axis sidelobe gain.[1]

The C-band terminal uses the Prodelin antenna with an aperture of 2.4 meters or the SeaTel antenna with an aperture of 2.4 meters. SES-Americom understands that these antennas are installed on oil platforms at fixed locations and generally exhibit non-compliance performance in the region from 1.0 to1.6 degrees off axis from the maximum gain. The antennas comply at 1.6 degrees and beyond with the requirements of Section 25.209 of the FCC's rules.

In order to prevent potential unacceptable interference from antenna misalignment, Petrocom will align the 2.4 meter antennas to less than or equal to 0.5 degrees offset in the azimuth direction of the intended satellite. In addition, the uplink power density for the antennas operating on the AMC-3 satellite at 87° W.L. will not exceed -12.0 dBW/4 kHz into the antenna flange.

SES Americom acknowledges that the use of the Prodelin 2.4 meter antenna and the SeaTel 2.4 meter antenna by PetroCom, installed and operated in accordance with the above conditions, should not cause unacceptable interference into adjacent satellites in accordance with FCC's 2-degree spacing policy and that Petrocom will accept interference from adjacent satellites to the degree to which harmful interference would not be expected to be caused to an earth station employing an antenna conforming to the reference patterns defined in Section 25.209 of FCC rules. If the use of this antenna should cause interference into other systems, Petrocom has agreed that it will terminate transmission immediately upon notice from the affected parties.

[1] 47 C.F.R. § 25.209

Respectfully,

Jaime Londono
Director, Satellite Market Development
SES Americom

Date

Acceptance by Petrocom:

Petrocom testifies that the information provided to SES Americom and reflected in this Affidavit letter is true and accurate to the best of Petrocom's knowledge.

Petrocom

By: Son Dutton

Title: Engineering Manager

7/27/2004
Date

Acceptance by Intelsat:

Intelsat agrees to the use of the Prodelin C-band antenna with an aperture of 2.4 meters and the SeaTel C-band antenna with an aperture of 2.4 meters, with their respective azimuth angle alignment tolerances toward AMC-3 and the power density levels into the antenna flange as stated in this letter, with respect to the Intelsat satellite transponders that are within ± 6.0 degrees orbital spacing from AMC-3 at 87° W.L.

Ram Manohar
Department Manager, Frequency Management
Intelsat

Date

SES AMERICOM
An SES GLOBAL Company

July 22, 2004

Federal Communications Commission
International Bureau
445 12th Street, SW
Washington, D.C. 20554

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The C-band terminal uses the Prodelin antenna with an aperture of 2.4 meters or the SeaTel antenna with an aperture of 2.4 meters. SES-Americom understands that these antennas are installed on oil platforms at fixed locations and generally exhibit non-compliance performance in the region from 1.0 to1.6 degrees off axis from the maximum gain. The antennas comply at 1.6 degrees and beyond with the requirements of Section 25.209 of the FCC's rules.

In order to prevent potential unacceptable interference from antenna misalignment, Petrocom will align the 2.4 meter antennas to less than or equal to 0.5 degrees offset in the azimuth direction of the intended satellite. In addition, the uplink power density for the antennas operating on the AMC-3 satellite at 87° W.L. will not exceed -12.0 dBW/4 kHz into the antenna flange.

SES Americom acknowledges that the use of the Prodelin 2.4 meter antenna and the SeaTel 2.4 meter antenna by PetroCom, installed and operated in accordance with the above conditions, should not cause unacceptable interference into adjacent satellites in accordance with FCC's 2-degree spacing policy and that Petrocom will accept interference from adjacent satellites to the degree to which harmful interference would not be expected to be caused to an earth station employing an antenna conforming to the reference patterns defined in Section 25.209 of FCC rules. If the use of this antenna should cause interference into other systems, Petrocom has agreed that it will terminate transmission immediately upon notice from the affected parties.

[1] 47 C.F.R. § 25.209

Respectfully,

J Londono

Jaime Londono
Director, Satellite Market Development
SES Americom

Date

Acceptance by Petrocom:

Petrocom testifies that the information provided to SES Americom and reflected in this Affidavit letter is true and accurate to the best of Petrocom's knowledge.

Jon Denton

Petrocom
By: Jon Denton
Title: Engineering Manager

7/27/2004
Date

Acceptance by Panamsat:

Panamsat agrees to the use of the Prodelin C-band antenna with an aperture of 2.4 meters and the SeaTel C-band antenna with an aperture of 2.4 meters, with their respective azimuth angle alignment tolerances toward AMC-3 and the power density levels into the antenna flange as stated in this letter, with respect to the PanAmSat satellite transponders that are within ± 6.0 degrees orbital spacing from AMC-3 at 87° W.L.

Mohammad Marashi
Vice President, Customer Support Engineering
PanAmSat Corporation

8/11/04
Date