

AREAS OF OPERATIONS EXHIBIT

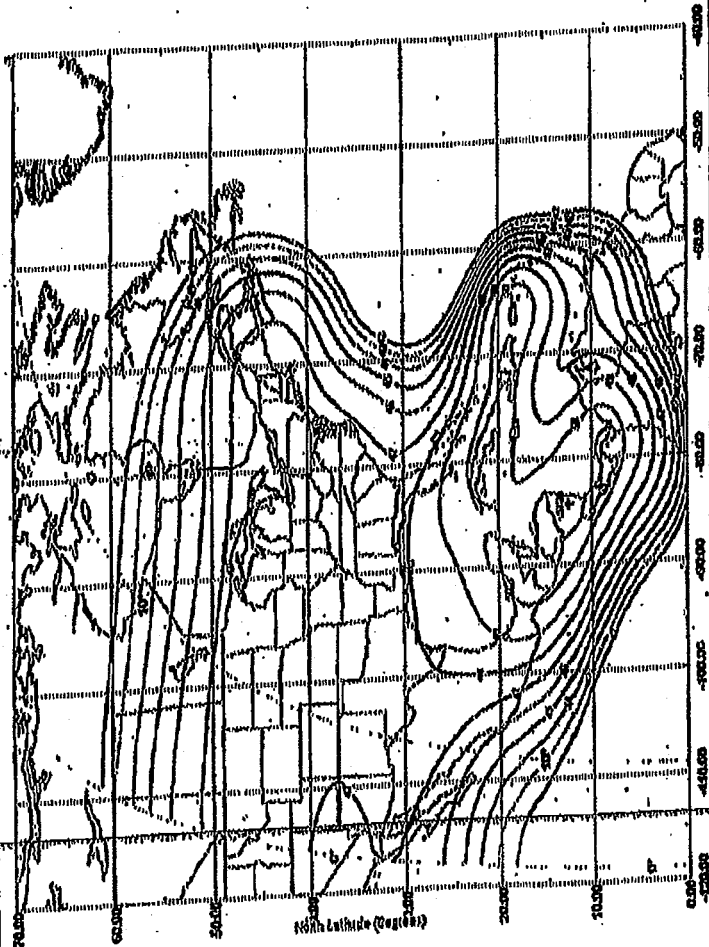
Maps showing areas of operation for Astrium Earth Station on Vessels (ESV) operated pursuant to the WB36 license ESV authorization.

Exhibit

T-11N



US Beam EIRP Contours



Telesat Proprietary

Telesat

MAORINAOR Beam EIRP Contours

Exhibit

T-11N

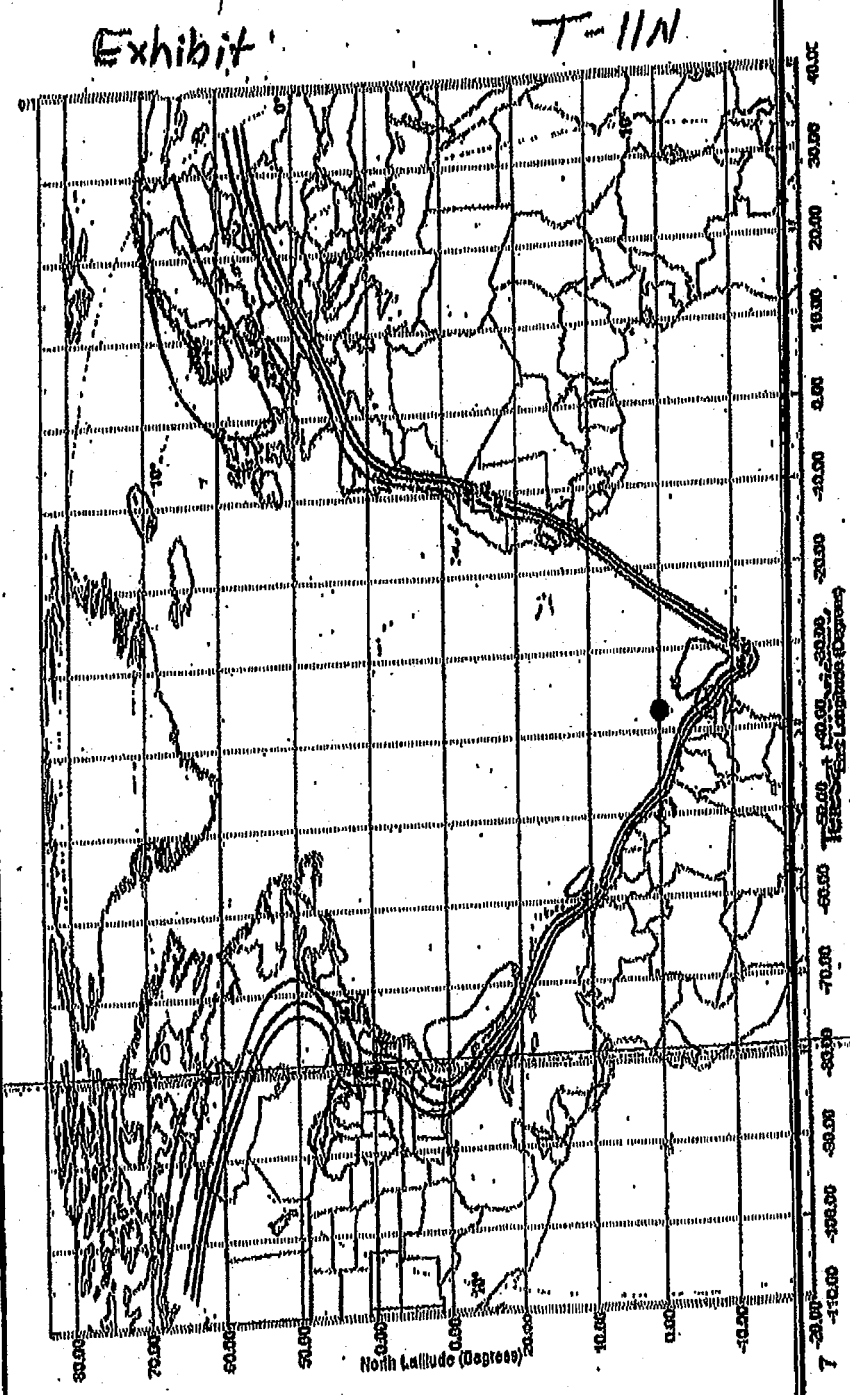


Exhibit AMC-21

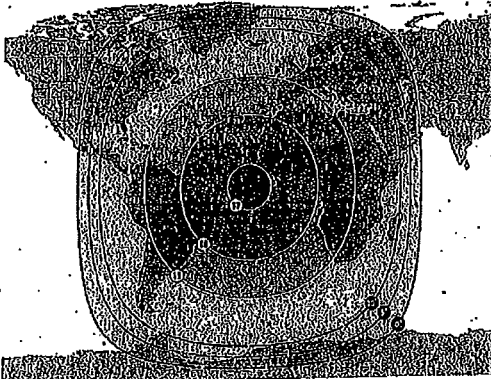


Exhibit

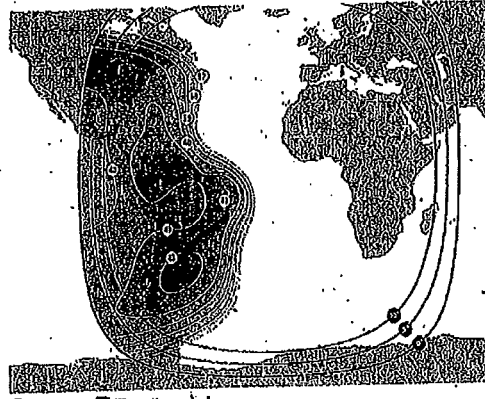
SES-4
338°E

Orbital location

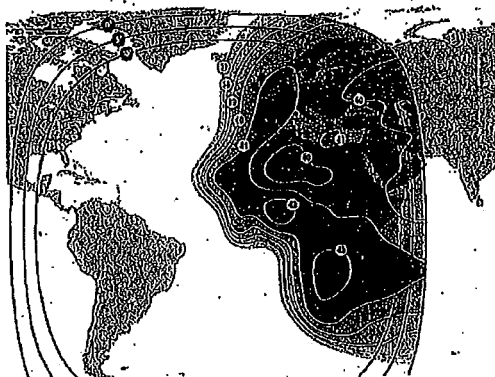
Global C-band beam



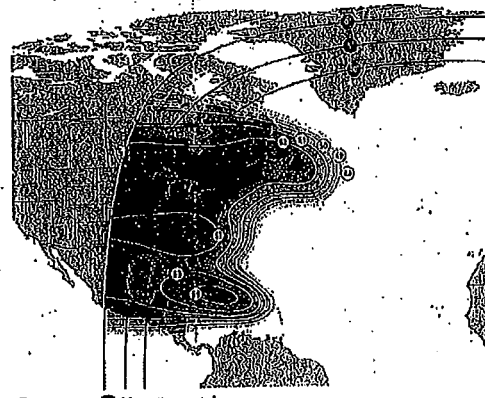
West Heml C-band beam



East Heml C-band beam



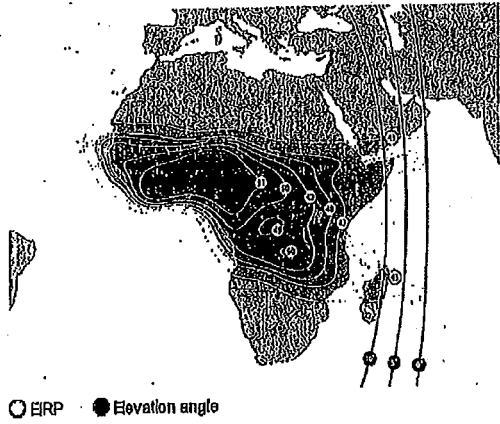
North America Ku-band beam



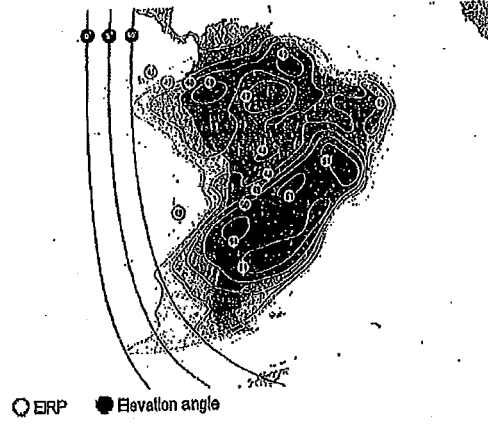
SES-4 338°E

Orbital location

West Africa Ku-band beam



Southern Cone Ku-band beam



Europe Middle East Ku-band beam

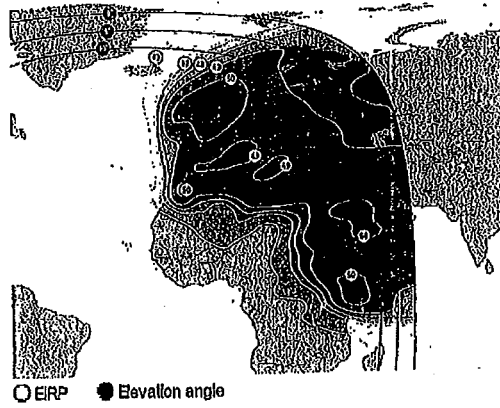
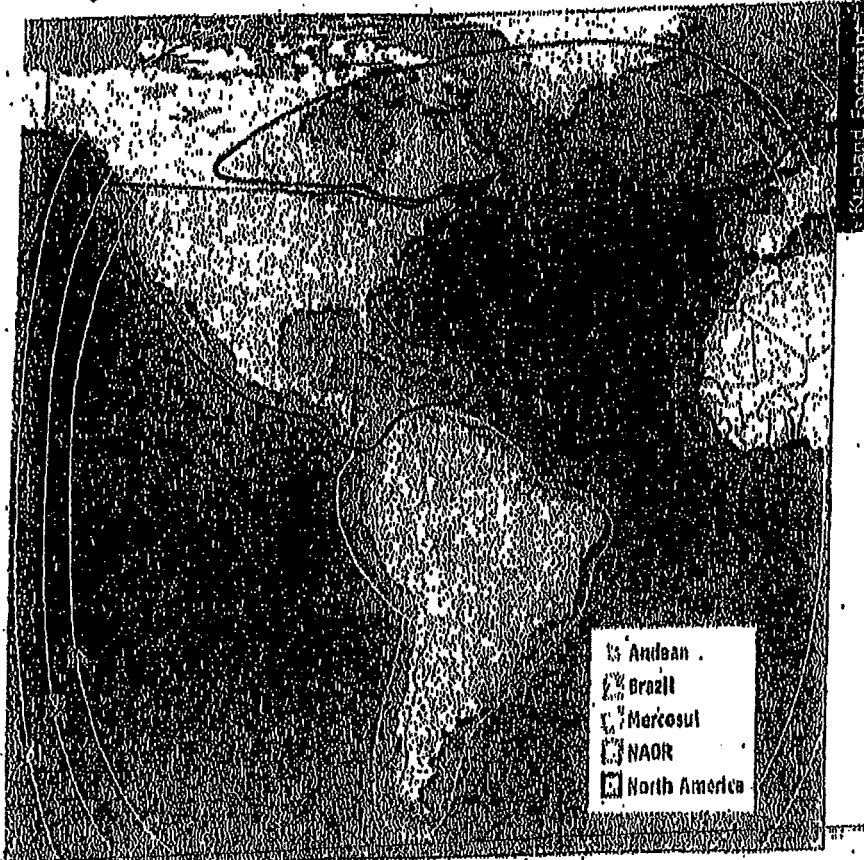


Exhibit NSS-7



Exhibit

ESTRELLA DO SUL 1



U-band Payload

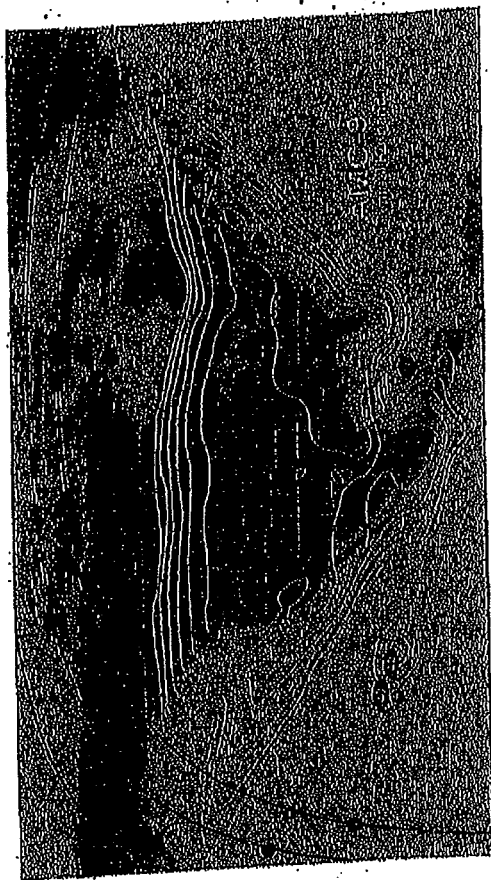
1800-1850 MHz
1875-1920 MHz
2000-2025 MHz
2100-2125 MHz

Frequency
Standard
Uplink: 16 to 16.6 GHz
Downlink: 11.7 to 12.2 GHz
Retarded
Uplink: 11.25 to 11.6 GHz
Downlink: 11.4 to 11.7 GHz

Service Area: South America
OR: 18-190 JMW/m

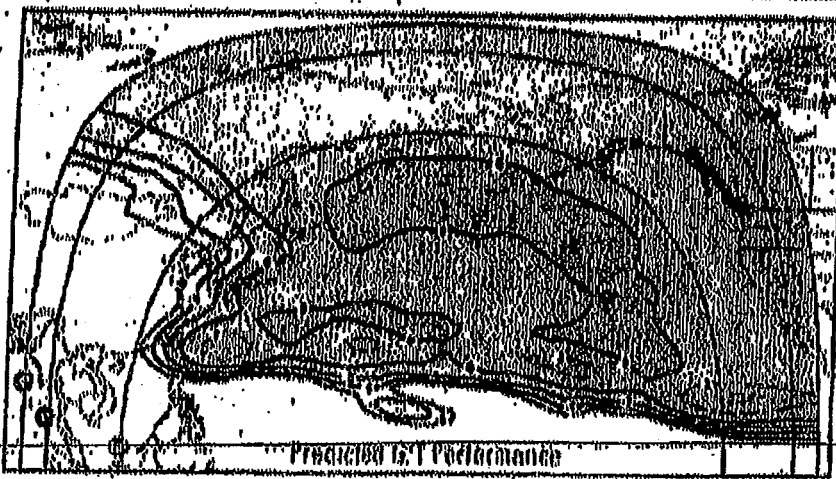
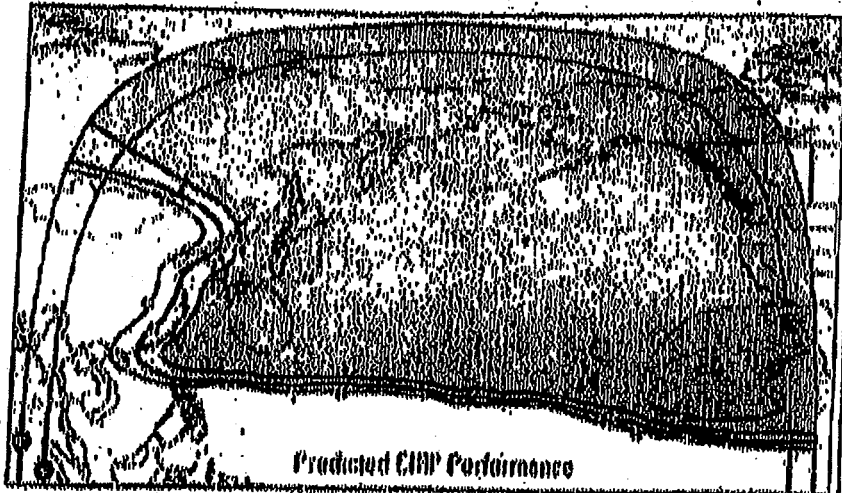
Exhibit

AMC-9



AMC-23 / CE-23
North Pacific Ku-band Zone Beam

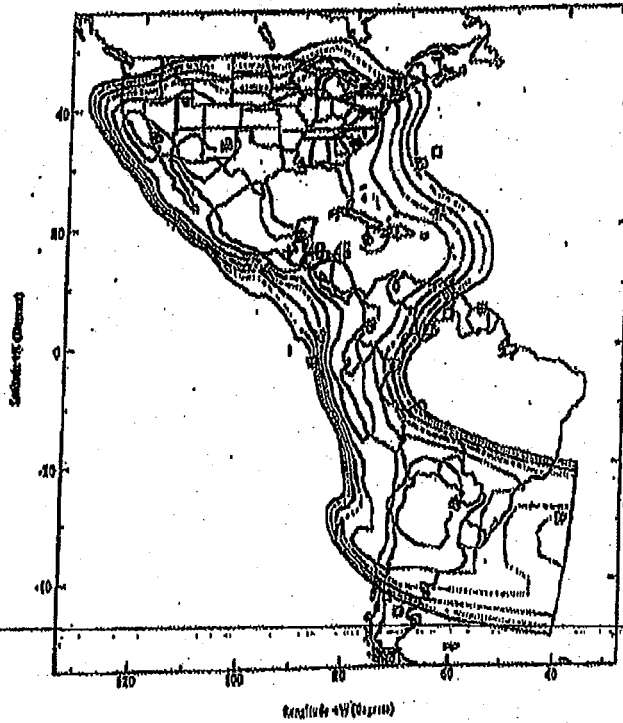
Exhibit



Exhibit



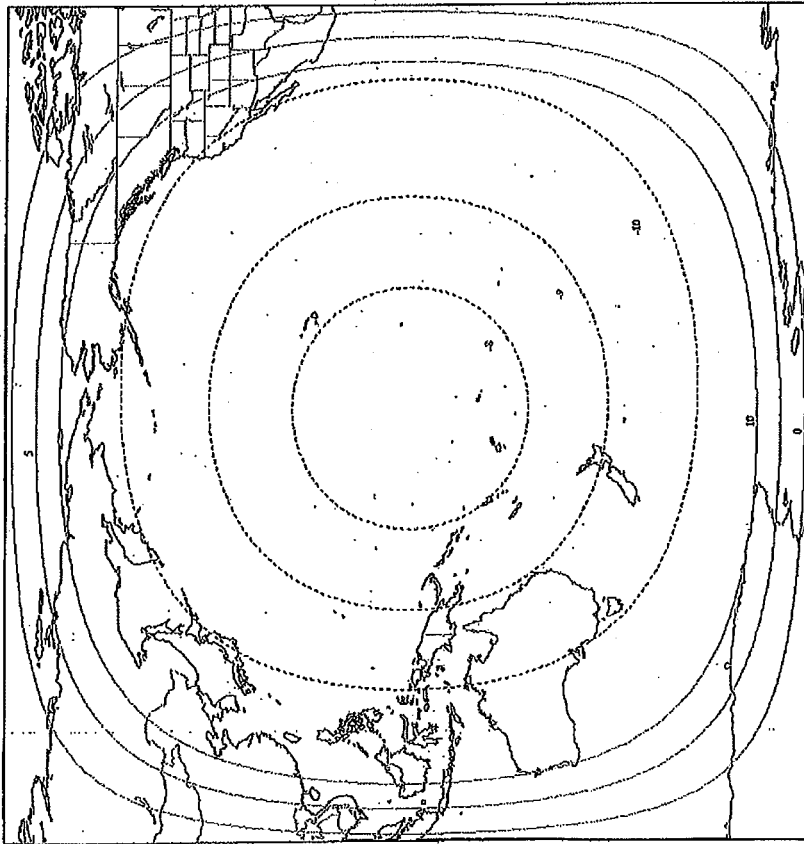
Satmex 5 (116.8° W)
EIRP
Region KU-2 Even Xponder
(Pol. Hor/Ver)



SATMEX PROPRIETARY INFORMATION

C-Band Global Beam G/T

Exhibit NSS-9



Contours Shown

G/T [dB/K]	Max SFD [dBW/m ²]	Min. SFD [dBW/m ²]
-8	-93	-78
-9	-92	-77
-10	-91	-76

-7.3 Beam Peak

Notes

The adjacent plot shows the predicted performance of a typical satellite transponder. Small performance differences should be expected between individual transponders.

IS-21 at 302°E – Ku-Band Mobility*

