ORIGINAL

EX PARTE OR LATE FILED

PAUL, WEISS, RIFKIND, WHARTON & GARRISON

1615 L STREET, NW WASHINGTON, DC 20036-5694

TELEPHONE (202) 223-7300
FACSIMILE (202) 223-7420

JEFFREY H. OLSON
COMMUNICATIONS COUNSEL

TELEPHONE (202) 223-7326

E-MAIL: jolson@paulweiss.com

1285 AVENUE OF THE AMERICAS
NEW YORK, NY 10019-6064
TELEPHONE (212) 373-3000
FACSIMILE (212) 757-3990

62, RUE DU FAUBOURG SAINT-HONORÉ
75008 PARIS, FRANCE
TELEPHONE (33 1) 53 43 14 14
FACSIMILE (33 1) 53 43 00 23

FUKOKU SEIMEI BUILDING
2-2 UCHISAIWAICHO 2-CHOME
CHIYODA-KU, TOKYO 100-0011, JAPAN
TELEPHONE (81-3) 3597-8101
FACSIMILE (81-3) 3597-8120

2918 CHINA WORLD TOWER II
NO. 1 JIANGUOMENWAI DAJIE
BEIJING, 100004
PEOPLE'S REPUBLIC OF CHINA
TELEPHONE (86-10) 6505-6822
FACSIMILE (86-10) 6505-6830

12TH FLOOR, HONG KONG CLUB BUILDING
3A CHATER ROAD, CENTRAL
HONG KONG
TELEPHONE (852) 2536-9933
FACSIMILE (852) 2536-9622

RECEIVED

MAY 24 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

May 24, 2001

By Hand

Magalie Roman Salas
Secretary
Federal Communications Commission
445 12th Street, N.W.,
Washington, DC 20554

Re: Ex Parte File Nos. 48-SAT-P/LA-97, 89-SAT-AMEND-97
130-SAT-AMEND-98, ET Docket No. 98-206

Dear Madam Secretary:

On May 23, 2001, Mark MacGann, Vice President, SkyBridge LLC; Didier Casasoprana, Helene Fauve, and Damien Garot, Senior Engineers, SkyBridge L.P.; and the undersigned met in person with Julius Knapp, Geraldine Matise, Thomas Derenge, and Bruno Pattan, Office of Engineering and Technology; and Paul Locke, Jennifer Gilsenan, and Alexander Roytblat, International Bureau, for the purpose of

No. of Copies rec'd 0+9
List A B C D E

discussing matters at issue in the above-referenced proceedings. Copies of the attached documents were distributed and discussed at this meeting.

Very truly yours,

Jeffrey H. Olson

Enclosures

cc: Julius Knapp, OET
Geraldine Knapp, OET
Thomas Derenge, OET
Bruno Pattan, OET
Paul Locke, IB
Jennifer Gilsenan, IB
Alexander Roytblat, IB

SkyBridge Interference Environment

To operate in the Ku-band, NGSO FSS systems must:

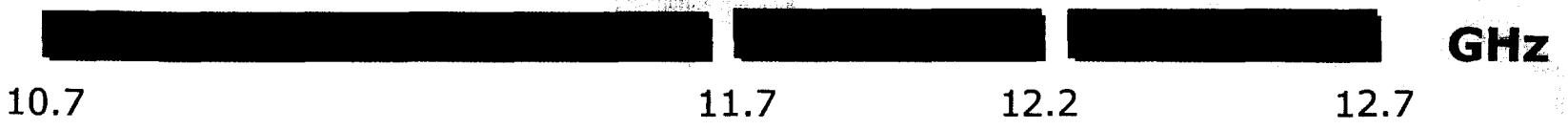
- Protect GSO FSS and BSS, FS
  - According to agreed protection criteria, EPFD limits, validation software (GSO)
  - According to agreed protection criteria, PFD limits (FS)
- Operate in an interference environment generated by GSO FSS and BSS, Radiolocation, FS
- Share with other NGSO FSS systems

SkyBridge
an Alcatel company

© SkyBridge L.P.

Ku-band NGSO FSS Frequency Plan

NGSO FSS down-link bands



GSO FSS down
FS

FSS down

BSS down
MVDDS

NGSO FSS gateways

NGSO FSS user terminals

SkyBridge
an Alcatel company

© SkyBridge L.P.

SkyBridge / Northpoint Sharing

SkyBridge has tried to find a sharing solution based on Northpoint claims regarding the deployment and operation of its system:

- **Use of typical Northpoint parameters rather than worst case parameters**
- **Definition of a regime which defines « low-power terrestrial transmitters »**

SkyBridge
an Alcatel company

© SkyBridge L.P.

SkyBridge Characteristics in the 12.2-12.7 GHz band

Use of small and ubiquitously deployed user terminals

- RF front end designed to receive in the entire downlink user terminal band (11.7-12.7 GHz)
- One carrier demodulator

11.7-12.7 GHz band divided to permit operation of 3 transponders

- Frequencies used depend on the traffic demand
- Statistical traffic multiplexing over the carriers operated over a cell

SkyBridge
an Alcatel company

© SkyBridge L.P.

SkyBridge / Northpoint Sharing Needs

For Northpoint:

- Limit the PFD received from NGSO satellites into MVDDS user terminals operated at low elevation angles

For SkyBridge:

Preserve the ability of SkyBridge to employ frequency diversity by

- Limiting the number and size of the zones in which NGSO User Terminal may need to employ frequency diversity
- In those zones, implementation of frequency diversity
  - protecting SkyBridge User terminal (UT) RF front end against saturation
  - protecting the band 11.7-12.2 GHz against high levels of interference in UT

➪ ***These requirements can be met by a definition of « low-power terrestrial transmission »***

SkyBridge
an Alcatel company

© SkyBridge L.P.

Sharing Agreement Between Two Parties

Co-primary service allocation has a meaning only if both services can operate co-frequency

A sharing regime is acceptable if

- ▼ **burden is shared**
- ▼ **burden corresponds to what systems can live with**

➪ **SkyBridge has proposed a sharing regime that both Northpoint and SkyBridge could live with according to the data available**

SkyBridge
an Alcatel company

© SkyBridge L.P.

SkyBridge Proposed Sharing Regime

- **SkyBridge commits to the Northpoint requested PFD limits on an operational* basis**
- **SkyBridge plans to implement frequency diversity to face MVDDS interference through the use of a transmitter database (location, power, tilt , antenna pattern)**
- **Definition of EPFD limits at the NGSO User Terminal:**
  - operational* limit of -132 dB(W/m2/4 kHz) to protect UT RF front end
  - -135.1 dB(W/m2/4 kHz), not to be exceeded over more than 0.2% of the service area of the MVDDS system (checked through simulations)
- **Limit on the zone within which user terminals may require frequency diversity**
  - PFD limit over 90% of MVDDS service area of -120 dB(W/m2/MHz) checked through simulations
- **Out of band limitation**
  - need for rule depends on the MVDDS authorized bandwidth in the FCC rules

**i.e. the limits must be honored into operational receivers and are not subject to generic testing and validation*

SkyBridge
an Alcatel company

© SkyBridge L.P.

Northpoint Known Parameters

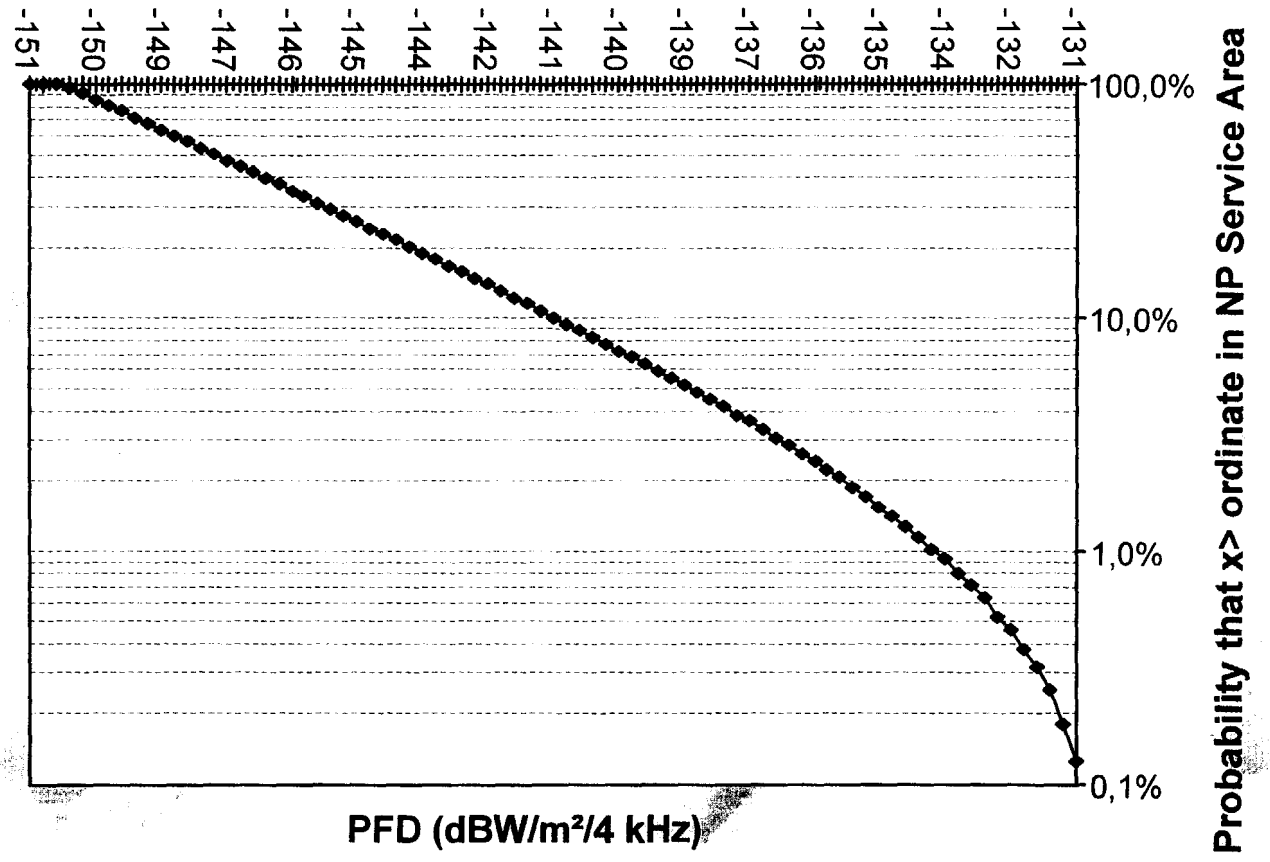
Northpoint requested the use of typical parameters in performing the interference calculations:

- **Transmit EIRP : 12.5 dBm**
- **Antenna tilt : +3°**
- **Antenna diagram**
- **Antenna Height: 150 m**
- **Pointing Azimuth: generally to the south**

SkyBridge
an Alcatel company

© SkyBridge L.P.

Northpoint PFD level in a Service Cell for a Typical Deployment



The proposed PFD of -120 dBW/m²/MHz is consistent with the « typical » deployment scenario described by Northpoint

SkyBridge
an Alcatel company

© SkyBridge L.P.

Conclusion

- Particularly given the various proposals for MVDDS on file and generated by the FNPRM, there is a need for clear, generic regulations to protect other services of the band
- SkyBridge has made proposals to permit sharing between SkyBridge and MVDDS based on the principle that both services share the burden
- Northpoint's claims regarding its system's needs have not been justified

SkyBridge
an Alcatel company

© SkyBridge L.P