"International Bureau License Conditions"

The Boeing Company will operate its earth stations in accordance with the terms, conditions, and technical specifications set forth in its applications, the Federal Communications Commission's Rules and the following conditions:

a) The newly authorized operations are subject to the terms and conditions previously specified concerning call sign WC2XVE, except to the extent that those terms and conditions are modified herein.

b) If the operator of an authorized space station point of communication has coordination agreements with adjacent FSS satellite operators up to six degrees away, then AES may operate such that the aggregate off-axis EIRP spectral density for co-polarized signals, emitted from all simultaneously transmitting AES antennas in the plane of the geostationary satellite orbit as it appears at the particular earth station location (*i.e.*, the plane determined by the focal point of the antenna and the line tangent to the arc of the geostationary satellite orbit at the position of the target satellite), are within agreed-to parameters and up to coordinated power levels. If the operator of an authorized space station point of communication does not have agreements with one or more adjacent operators up to six degrees away, then the aggregate off-axis EIRP spectral density for co-polarized signals, emitted from all simultaneously transmitting AES antennas in the plane of the geostationary satellite orbit as it appears at the particular earth station location (*i.e.*, the plane determined by the focal point of the antenna and the line tangent to the arc of the geostationary satellite orbit at the position of the target satellite), shall not exceed a 1 dB margin below the following values:

$15 - 25\log\theta$ dBW/4kHz	for $1.25° \leq \theta \leq 7.0°$
-6 dBW/4kHz	for $7.0° < \theta \leq 9.2°$
$18 - 25\log\theta$ dBW/4kHz	for $9.2° < \theta \leq 48°$
-24 dBW/4kHz	for $48° < \theta \leq 180°$

[1] *See* 47 U.S.C. § 153(51) ("The term 'United States' means the several States and Territories, the District of Columbia, and the possessions of the United States, but does not include the Canal Zone.")

[2] *See supra* footnote 10.

For $\theta > 7°$, the values above may be exceeded by no more than 10% of the sidelobes, provided no individual sidelobe exceeds the criteria given by more than 3 dB.

In all other directions, the off-axis EIRP spectral density for co-polarized signals emitted from the AES shall not exceed a 1 dB margin below the following values:

$18 - 25\log\theta$ dBW/4kHz for $1.25° \leq \theta \leq 48°$

-24 dBW/4kHz for $48° < \theta \leq 180°$

In all directions, the off-axis EIRP spectral density for cross-polarized signals emitted from the AES shall not exceed a 1 dB margin below the following values:

$5 - 25\log\theta$ dBW/4kHz for $1.8° \leq \theta \leq 7°$

-16 dBW/4kHz for $7° \leq \theta \leq 9.2°$

where θ is the angle in degrees from the axis of the main lobe.

c) AES operations shall not cause harmful interference to any authorized station (including foreign-authorized stations) operating in compliance with the Table of Allocations, either domestically (non-Federal and Federal stations) or internationally, (*see also* 47 C.F.R. § 2.106). Boeing shall immediately terminate its AMSS operation upon notification that such operation is causing harmful interference, not permitted under the terms of a pertinent coordination agreement, with lawful operation of any radio system authorized in conformance with the Table of Allocations;

d) Boeing must accept any interference from lawful operation of any station authorized to operate in accordance with the Table of Allocations (47 C.F.R. § 2.106).

e) Boeing shall immediately terminate its AMSS operation upon notification that such operation is causing harmful interference, not permitted under the terms of a pertinent coordination agreement, with lawful operation of any system in the 14.0-14.5 GHz band authorized in conformance with the Table of Allocations or authorized on a secondary basis.

f) When Boeing operates in the 14.0-14.5 GHz frequency band in the international airspace within line-of-sight of the territory of a foreign administration where fixed service networks have primary allocation in this band, the maximum pfd produced at the surface of the Earth by emissions from a single AES in Boeing's network should not exceed the following values unless the foreign administration has imposed other conditions for protecting its FS stations:

$-132 + 0.5 \cdot \theta$ dB(W/(m^2 · MHz)) for $\Theta \leq 40°$

-112 dB(W/(m^2 · MHz)) for $40° < \Theta \leq 90°$

Where: θ is the angle of arrival of the radio-frequency wave (degrees above the horizontal) and the aforementioned limits relate to the pfd and angles of arrival would be obtained under free-space propagation conditions.

To the extent that all relevant administrations have identified geographic areas from

which AMSS operations would not affect their radio operations, Boeing is free to operate its AES within those identified areas without further action.

g) Boeing's AES operations in the 14.0-14.5 GHz band shall comply with the provisions of Annex 1, Part C of Recommendation ITU-R M.1643, with respect to any radio astronomy station performing observations in the 14.47-14.5 GHz band.

h) Authority is granted to operate these stations by remote control provided that: (1) the parameters of the transmissions of these stations are monitored at the remote control point, including the operational functions sufficient to ensure that the operations of these stations are in full compliance with the station authorization at all times; (2) upon detection by the grantee, or upon notification from the Commission, of a deviation of the operation of any of these stations, such operation shall be immediately suspended until the deviation is corrected, except the transmissions concerning the immediate safety of life or property may be conducted for the duration of such emergency; and (3) the grantee shall have available, at all times, the technical personnel necessary to perform the technical servicing and maintenance of these stations expeditiously.

i) Twelve months after release of this order, Boeing shall submit the most-recent available data concerning aggregate earth-station off-axis EIRP and shall disclose any discrepancies between previous predictive assumptions and conditions actually encountered in operation and explain what compensating adjustments have been made.

This *Authorization* and all conditions contained herein are subject to the final outcome of the Commission's rulemaking in IB Docket No. 05-20 and The Boeing Company Experimental AMSS operations shall operate in compliance with any pertinent rule requirements subsequently adopted by the Commission.