

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of)	
)	
AFRISPACE, INC.)	IB File No. SAT-LOA-20050311-00061
)	
Application for Authority to Launch and)	Call Sign: S2666
Operate a Replacement Satellite, AfriStar-2,)	
at 21° E.L. and to Co-locate It with AfriStar-1)	
)	

ORDER AND AUTHORIZATION

Adopted: January 03, 2006

Released: January 03, 2006

By the Chief, International Bureau:

I. INTRODUCTION

1. By this Order, we authorize AfriSpace, Inc. (AfriSpace)¹ to launch and operate the AfriStar-2 satellite in the geostationary-satellite orbit (GSO) at the 21° East Longitude (E.L.) orbital location. AfriStar-2 is controlled from the United States and is capable of providing Broadcasting-Satellite Service (sound) (BSS (sound)) to Africa and Europe on a non-common carrier basis. We authorize AfriStar-2 to operate downlinks within 2.6 megahertz of spectrum in each polarization with a center frequency of 1479.5 MHz. We also authorize AfriSpace to utilize feeder links and telecommand links for the AfriStar-2 satellite in the 7025-7075 MHz frequency band, to operate its telemetry link for the AfriStar-2 satellite at a center frequency of 1491.7 MHz, and to co-locate the AfriStar-2 satellite at 21° E.L. with the AfriStar-1 satellite currently in orbit. In addition, we grant AfriSpace a waiver of the Commission's rule regarding transponder saturation flux densities for the AfriStar-2 satellite.² These authorizations give AfriSpace the capability to continue to provide service to existing customers despite unanticipated technical difficulties experienced by the AfriStar-1 satellite and to serve new customers, conditioned on AfriSpace complying with the applicable laws, regulations, rules, and licensing procedures of any countries it proposes to serve.

¹ AfriSpace is a wholly-owned subsidiary of WorldSpace, Inc. See AfriSpace, Inc., Application for Authority to Launch and Operate a Replacement Satellite, AfriStar-2, at 21° E.L. and to Co-locate it with AfriStar-1, File No. SAT-LOA-20050311-00061 (filed March 11, 2005) (AfriStar-2 Application) at Exhibit E.

² 47 C.F.R. § 25.210(c).

II. BACKGROUND

2. In 1999, the Commission authorized AfriSpace to launch and operate the AfriStar-1 GSO satellite at 21° E.L. to provide BSS (sound) service on a non-common carrier basis to satellite radio receivers in Africa and the Middle East in the 1452-1492 MHz frequency band.³ Since that authorization, AfriStar-1 has been providing 35 channels of audio programming to Africa and the Middle East, and reaches an estimated 245,000 receivers.⁴ AfriSpace's programming includes news, sports, and music, as well as specialized programming, such as distance education programs provided in conjunction with the Kenya Institute of Education and the Pakistan Education Initiative.⁵ In addition, AfriStar-1 transmits information throughout Africa and the Middle East for the U.S. Air Force Weather Agency and provides information and entertainment programming to U.S. Armed Forces stationed in these regions.⁶ AfriSpace states that, due to the better-than-expected sensitivity of AfriSpace's radio receivers, the service area of the AfriStar-1 satellite can be expanded to include parts of South Asia and Western Europe within the -8 dB contour of the satellite's footprint.⁷ By letter dated April 8, 2004, AfriSpace notified the Commission that it was serving these spill-over areas under its existing space station authorization.⁸

3. On March 11, 2005, AfriSpace filed an application to launch and operate a satellite, AfriStar-2, that will eventually replace AfriStar-1.⁹ In its application, AfriSpace states that the AfriStar-1 space station needs to be replaced sooner than anticipated due to degradation of the satellite's solar array panels, which will significantly reduce the amount of power available to the satellite and thus reduce its expected service life.¹⁰ Without full power, AfriSpace states that it will need to begin shutting off transponders by 2008, which is three years earlier than the satellite's projected end of useful life.¹¹ AfriSpace states that shutting off transponders would reduce the capacity available on AfriStar-1 and decrease the services provided to the public.¹²

³ AfriSpace, Inc., *Order and Authorization*, 15 FCC Rcd 1632 (Int'l Bur. Sat. and Rad. Div. 1999) (1999 *AfriSpace Authorization Order*).

⁴ AfriStar-2 Application, Exhibit A at 4.

⁵ *Id.* at 4-5.

⁶ *Id.* at 5.

⁷ *Id.* at 4.

⁸ *Id.* at 4, n.12, citing Letter from Tara K. Giunta to Marlene H. Dortch, FCC, dated April 8, 2004. See also Amendment to the Commission's Regulatory Policies Governing Domestic Fixed Satellites and Separate International Satellite Systems, *Report and Order*, 11 FCC Rcd 2429 (1996) (*DISCO I*). Under *DISCO I*, U.S.-licensed satellites may serve all areas covered by their footprint without further Commission approval, subject to any necessary foreign approval to serve a particular country. See *id.* at 2429.

⁹ See *supra*, note 1.

¹⁰ AfriStar-2 Application, Exhibit A at 6. AfriSpace has traced the degradation to a darkening of the cells of the space station's solar arrays. *Id.* at 6.

¹¹ *Id.* at 7.

¹² *Id.*

4. To prevent a reduction in services, AfriSpace requests authority to launch the AfriStar-2 satellite to the 21° E.L. orbital location in 2006 and to co-locate it with AfriStar-1.¹³ AfriSpace states that by co-locating the satellites it will be able to consolidate traffic and turn off channels on AfriStar-1 as the power output of the satellite's solar arrays falls below the level necessary to operate all six transponders.¹⁴ By consolidating traffic and turning off channels on AfriStar-1, AfriSpace claims that it will be able to manage better the waning power resources of AfriStar-1 and extend the useful life of the space station for perhaps 12-18 months, into 2009.¹⁵

5. According to AfriSpace's application, AfriStar-2 will operate within the same authorized downlink frequency band, 1452-1492 MHz, as AfriStar-1.¹⁶ AfriStar-2 will transmit two 2.6 megahertz-bandwidth time division multiplexing (TDM) service link channels, each operating on a center frequency of 1479.5 MHz, one using right-hand circular polarization, and the other using left-hand circular polarization.¹⁷ AfriSpace states that AfriStar-2 will utilize the same network of telemetry, tracking, and control (TT&C) earth stations as those used to maintain the AfriStar-1 space station.¹⁸ Further, AfriSpace will transmit TT&C with a center frequency of 1491.7 MHz using right-hand circular polarization.¹⁹ AfriSpace also states that service will be uplinked to AfriStar-2 using the same 7025-7075 MHz frequency bands that it currently uses for

¹³ *Id.*

¹⁴ *Id.*

¹⁵ *Id.* at 7-8. Although AfriSpace does not seek such authority in this application, it informs that it intends to request authority to launch and operate a third satellite, AfriStar-3, in 2009 in order to provide continuity of service to areas not served by AfriStar-2 once AfriStar-1 no longer has sufficient power to operate. *Id.* at 10.

¹⁶ AfriStar-2 Application, Exhibit A at 7.

¹⁷ AfriStar-2 Application, Form 312 – Schedule S (Technical and Operational Description) at 6. For efficient reception of the service link transmissions, AfriSpace's receivers must use circularly-polarized antennas, so that if the right-hand circularly polarized signal is desired, the receiver can discriminate against the left-hand circularly polarized signal, and vice-versa.

¹⁸ AfriStar-2 Application, Exhibit A at 11. AfriSpace refers to its 1999 application for a full discussion of the ground stations that track, control and monitor its system. *See id.* at n.15. As part of its 1999 application, AfriSpace states that a Regional Operations Center (ROC) in Washington, D.C., will manage the performance and operations of AfriStar satellite systems, including the on-board communications payload. The Washington, D.C. center will control and facilitate the delivery and quality of the signals to the satellite and route them through the onboard communications payload to their appropriate downlink carriers. The Washington, D.C., control center is currently connected to earth stations in Bangalore, India, and Port Luis, Mauritius by dedicated telephone lines. AfriSpace states that these stations are "largely unmanned and controlled directly from the ROC in Washington, D.C. and that local contractors provide maintenance of these stations on an "as needed" basis. AfriSpace further states that the ROC in Washington, D.C. is the control center for all operations of the satellite, and can turn off any transponder if there is a technical problem, can control individual channels on half of the transponders and is being equipped to relay U.S.-originated programming to its service areas. *See 1999 AfriSpace Authorization Order*, 15 FCC Rcd at 1633-34 (para. 5).

¹⁹ AfriStar-2 Application, Form 312 – Schedule S (Technical and Operational Description) at 6. We note that the AfriStar-1 satellite uses the same frequency and polarization for its telemetry transmissions as that proposed for the telemetry transmissions of the AfriStar-2 satellite.

AfriStar-1 through feeder link stations in South Africa, the United Kingdom, and Kenya, which are licensed and coordinated in their respective countries.²⁰

6. The AfriStar-2 Application was placed on Public Notice on March 18, 2005.²¹ Ondas Spain, SL (Ondas) filed a petition to deny.²² Ondas is seeking to implement a competing BSS (sound) system in Europe using satellites in non-geostationary satellite orbit (NGSO) and asserts that authorization of the AfriStar-2 satellite by the Commission would preclude the implementation of Ondas's system and create "significant jurisdictional issues between the U.S. and Europe."²³ AfriSpace opposes the petition to deny.²⁴ In addition, the Agence Nationale des Fréquences of the Republic of France filed a letter expressing a desire for close coordination between the U.S. and French administrations on the development of a European Satellite Digital Radio program (E-SDR) that will use the same frequency assignments as those requested for AfriStar-2.²⁵

III. DISCUSSION

A. Processing Procedure

1. Inapplicability of Replacement Satellite Procedures

7. AfriSpace requests us to process its application pursuant to the Commission's policy for replacement satellites.²⁶ In the *First Space Station Licensing Reform Order*,²⁷ the Commission reiterated its policy governing the replacement of GSO satellites.²⁸ Under this

²⁰ AfriStar-2 Application, Exhibit C at 1.

²¹ Public Notice, Policy Branch Information: Satellite Space Applications Accepted for Filing, Report No. SAT-00279 (Mar. 18, 2005). Although AfriSpace filed as an application for a replacement satellite, the initial file number designation of SAT-RPL-20050311-00061 was changed to SAT-LOA-20050311-00061, without prejudice to the determination of its replacement status. *See id.*

²² Ondas Spain, SL, Petition to Deny, File No. SAT-LOA-20050311-0061 (filed Apr. 18, 2005) (Ondas Petition to Deny).

²³ *Id.* at 4.

²⁴ AfriSpace, Inc., Opposition of AfriSpace, Inc. to Petition to Deny, File No. SAT-LOA-20050311-00061 (filed May 3, 2005) (AfriSpace Opposition).

²⁵ Letter from François Rancy, Director General, Agence Nationale des Fréquences, to Thomas S. Tycz, Chief, Satellite Division, FCC, dated April 20, 2005 (Rancy Letter).

²⁶ AfriStar-2 Application, Exhibit A at 11.

²⁷ Amendment of the Commission's Space Station Licensing Rules and Policies, *First Report and Order and Further Notice of Proposed Rulemaking*, IB Docket No. 02-34, 18 FCC Rcd 10760 (2003) (*First Space Station Licensing Reform Order*).

²⁸ *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10854-55 (para. 250), citing Assignment of Orbital Locations to Space Stations in the Domestic Fixed-Satellite Service, *Memorandum Opinion and Order*, 3 FCC Rcd 6972, 6976 n.31 (1988) (*1988 Order Assignment Order*); Hughes Communications Galaxy, Inc., *Order and Authorization*, 6 FCC Rcd 72, 74 n.7 (1991) (*Hughes Replacement Order*); GE American Communications, Inc., *Order and Authorization*, 10 FCC Rcd 13775, 13775-76 (para. 6) (Int'l Bur. 1995) (*GE Americom Replacement Order*).

policy, the Commission will generally authorize a replacement satellite at the same orbital location as the satellite it intends to replace, so long as the orbit location remains available for a U.S. satellite with the technical characteristics of the proposed replacement satellite.²⁹ A replacement satellite need not be technically identical to the satellite it is replacing, but must be operated at the same orbit location, in the same frequency bands, and with the same coverage area as one of the licensee's existing satellites.³⁰ The Commission acts on applications for replacement satellites as they are filed and outside of the frameworks established for processing applications in the *First Space Station Licensing Reform Order*.³¹

8. We conclude that AfriStar-2 does not satisfy the Commission's criteria for a replacement satellite because AfriStar-2 has a substantially different coverage area than AfriStar-1. Although the coverage patterns of AfriStar-2 and AfriStar-1 would overlap over northwestern and northeastern Africa and parts of Western Europe, the footprint of AfriStar-2 is centered over Europe and would permit greater signal strength into Europe, as well as the western parts of Russia, than that currently provided by AfriStar-1.³² Further, the coverage area includes territory not accessible by AfriStar-1. Because of the differences in the footprints of the AfriStar-2 and AfriStar-1 satellites, we conclude that AfriSpace's request to classify AfriStar-2 as a replacement satellite is not consistent with the Commission's rules and will consider AfriSpace's application as a request for new authority.

2. Waiver of Processing Round Procedures

9. In the *First Space Station Licensing Reform Order*, the Commission adopted various procedural reforms to expedite the licensing process for most satellite services.³³ As part of these

²⁹ *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10855 (para. 250), citing *1988 Order Assignment Order*, 3 FCC Rcd at 6976 n.31; *GE Americom Replacement Order*, 10 FCC Rcd at 13775-76 (para. 6).

³⁰ 47 C.F.R. § 25.165(e). In the past, the Commission has considered applications for replacement satellites with greater coverage areas than the original satellites, but the Commission revisited this policy as part of the *First Space Station Licensing Reform Order*. See *First Space Station Reform Order*, 18 FCC Rcd at 10857 (para. 258), citing Application of Columbia Communications Corporation for Modification of Authorization to Permit Operation of Ku-band Satellite Capacity on the Columbia 515 Satellite Located at 37.7° West Longitude, *Memorandum Opinion and Order*, 16 FCC Rcd 12480, 12483-84 (para. 9) (Int'l Bur. 2001). Accordingly, greater coverage areas are no longer included in a licensee's replacement expectancies. See *First Space Station Reform Order*, 18 FCC Rcd at 10857 (para. 258).

³¹ *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10855 (para. 250), citing *GE Americom Replacement Order*, 10 FCC Rcd at 13775-76 (para. 6); Loral Spacecom Corp., *Order and Authorization*, 13 FCC Rcd 16348-16440 (para. 5) (Int'l Bur., Sat. & Rad. Div. 1995).

³² AfriStar-2 Application, Exhibit A at 8-9 (providing the gain contours of the AfriStar-1 and AfriStar-2 space stations).

³³ The Commission's space station licensing reforms do not apply to applications for Direct Broadcast Satellite (DBS) or Digital Audio Radio Satellite (DARS) licenses. See *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10764, n.4. Because AfriSpace does not seek to operate in frequency bands allocated to DBS and DARS in the United States, its application does not fall into either of these exceptions and is subject to the Commission's space station licensing reforms.

reforms, the Commission adopted two separate licensing frameworks for satellite systems – a modified processing round procedure and a “first-come, first-served” approach.³⁴ Under the modified processing round procedure, the first-filed application for a particular frequency band is placed on public notice and parties are invited to file other potentially competing applications by a specified cut-off date.³⁵ All applications filed by the cut-off date are considered concurrently, and the Commission then issues licenses by dividing the available spectrum equally among the qualified applicants.³⁶ By contrast, under the “first-come, first-served” approach, the first-filed acceptable application for a particular satellite license is considered before considering other applications requesting to use the same spectrum.³⁷ The Commission issues a public notice inviting comment on the application and places subsequently-filed, mutually exclusive applications in a queue according to their time of filing.³⁸ If the first-filed application is not technically incompatible with any licensed satellite system, the Commission will grant it. If the Commission cannot grant the first-filed application, it dismisses it and considers the next application in the queue.³⁹

10. The selection of a processing procedure depends on whether the satellite system is “NGSO-like” or “GSO-like” in nature.⁴⁰ The Commission defined NGSO-like satellite systems as those in which the earth station has little or no directivity towards a satellite so that the earth station must track the satellite in all directions, such as hand-held satellite telephones.⁴¹ NGSO systems generally cannot operate on the same spectrum without causing unacceptable interference to each other.⁴² GSO systems, however, employ earth stations with antennas with directivity towards the satellites.⁴³ As a result, GSO satellites can operate on the same spectrum at two-degree orbital spacings.⁴⁴

11. Although the AfriStar-2 satellite will be placed in a geostationary satellite orbit, the subscriber receivers that are part of the AfriSpace system have little or no directivity towards a satellite. Thus, AfriSpace’s use of the 1452-1492 MHz frequency band is considered as NGSO-like for the purposes of our processing procedures.⁴⁵ This means that its request to use the 1452-1492 MHz frequency band would typically be considered in a modified processing round where

³⁴ *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10769 (para. 13).

³⁵ *Id.* at 10782-83 (para. 48).

³⁶ *Id.*

³⁷ *Id.* at 10774 (para. 24).

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ *See First Space Station Licensing Reform Order*, 18 FCC Rcd at 10773 (para. 21).

⁴¹ *Id.*

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ While the AfriSpace subscriber receivers may provide a limited amount of directivity, they are unable to discriminate between satellites on the geostationary arc that are visible above the horizon.

competing applications are invited and considered concurrently, under the rules adopted in the *First Space Station Licensing Reform Order*.

12. The Commission has, however, waived the modified processing round procedure for NGSO-like system applications when, as a practical matter, it would not be possible to authorize a competing NGSO-like system with the same parameters as the proposed NGSO-like system. For example, in *Mobile Satellite Ventures* the International Bureau waived the processing round requirement and considered an application for an NGSO-like satellite that was to serve South America without inviting competing applications.⁴⁶ In that case, the applicant's proposed South American satellite was to operate on the same frequencies as the applicant's already licensed NGSO-like satellite serving North America. The Bureau found that the applicant was seeking to use existing licensed spectrum to serve a new geographic area and, in this particular frequency band, any other prospective NGSO system operating in this spectrum in the new geographic service area would be likely to cause harmful interference into the applicant's existing operations.⁴⁷ Because the Commission will not authorize new systems that would cause interference to licensed U.S. systems,⁴⁸ the Bureau would not license another NGSO-like satellite to operate in the same frequencies as the North American satellite. Thus, if we did not license the co-frequency, co-owned South American satellite, whose licensee could self-coordinate operations on both satellites, we would be preventing any U.S.-licensed system from offering service into South America in those frequency bands. Accordingly, the Bureau waived the modified processing round procedure and immediately considered the South American satellite application.⁴⁹

13. Circumstances require the same treatment of the AfriStar-2 application. AfriSpace does not seek authorization to use any additional spectrum in the 1452-1492 MHz frequency band. Rather, AfriStar-2 will use frequencies within the 1452-1492 MHz frequency band that the AfriStar-1 satellite is already authorized to use. In the *1999 AfriSpace Authorization Order*, the Satellite and Radiocommunication Division authorized AfriSpace to launch and operate the AfriStar-1 satellite to provide BSS (Sound) service in the 1452-1492 MHz frequency band in accordance with technical specifications set forth in its application.⁵⁰ In its application for AfriStar-1, AfriSpace stated that it would transmit six service link signals in three antenna beams, two signals per beam.⁵¹ AfriSpace stated that it could tune the frequencies of these

⁴⁶ *Mobile Satellite Ventures Subsidiary LLC, Order and Authorization*, 20 FCC Rcd 479 (Int'l Bur. 2005) (*Mobile Satellite Ventures*).

⁴⁷ *Id.* at 482 (para. 8).

⁴⁸ *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10806 (para. 113).

⁴⁹ *Mobile Satellite Ventures*, 20 FCC Rcd at 482 (para. 8).

⁵⁰ *See 1999 AfriSpace Authorization Order*, 15 FCC Rcd at 1637 (para. 14).

⁵¹ *See* Amendment to its Application for Authority to Construct, Launch, and Operate a Subregional Africa and Middle Eastern Satellite Sound Broadcasting Transmission System, File No. CSS-90-017, IBFS File No. SAT-AMD-19990125-00016 (filed January 25, 1999), Attachment 2 at 1. The original AfriStar-1 service link antenna beams listed in the AfriStar-1 Application Amendment were designated AD, BD, and CD. Beam AD was aimed at northeastern Mali, beam BD was aimed at southeastern Sudan, and beam CD was aimed at northern Botswana. AfriSpace has since amended its ITU filing to (continued....)

signals in steps of 920 kilohertz across the 1457-1492 MHz band.⁵² AfriSpace's service area includes the territories within the -8 dB antenna pattern contours of AfriStar-1's three antenna beams.⁵³ Upon examination of the AfriStar-1 antenna beams, using the ITU Radiocommunication Bureau's GIMS software,⁵⁴ we find that their combined service area covers the entire African continent, as well as large portions of southern and western Europe, the Middle East, and the eastern part of South Asia, as well as smaller portions of eastern Europe and the Russian Federation. In addition, AfriStar has notified the Commission that it is providing service to parts of Western Europe using AfriStar-1.⁵⁵ Based on our understanding of L-band space station antenna designs, and given the large geographic coverage area of AfriStar-1, we conclude that we could not authorize another BSS (sound) operator's space station in the 1457-1492 MHz band and above the horizon at the location of an AfriStar-1 receiver without resulting unacceptable interference to the AfriStar-1 network.⁵⁶

14. Therefore, we waive application of the modified processing round procedure in this instance. Further, since AfriSpace can self-coordinate the operations of AfriStar-2 with those of AfriStar-1, we can authorize the AfriStar-2 BSS (sound) space station. Consequently, we will waive the modified processing round requirement for NGSO-like systems in this situation and will award AfriSpace authority to construct and launch AfriStar-2 if it is otherwise qualified.

3. Application of First-Come, First-Served for FSS Feeder Links

15. We find that AfriSpace's request for fixed-satellite service feeder links in the 7025-7075 MHz frequency bands is governed by the first-come, first-served policy for GSO-like satellites set forth in the *First Space Station Licensing Reform Order*. There are no prior requests to use these frequencies at, or within two degrees of, the 21° E.L. orbital location, and AfriSpace states that it has already coordinated use of these frequencies.⁵⁷ Consequently, we grant AfriSpace license to operate on these frequencies if it is otherwise qualified.

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show beams AD2, BD2, and CD2, which are aimed slightly to the east of the corresponding beams in its earlier filing.

⁵² See AfriStar-1 Application Amendment, Attachment 2 at 3. AfriSpace stated that the carrier frequencies for its transparent mission are settable from 1453.844 MHz to 1490.644 MHz in steps of 920 kHz, and the carrier frequencies for its processed mission are settable from 1453.384 MHz to 1490.184 MHz in steps of 920 kHz, and that it could select any center frequency in these ranges for transmission of a 3.68 MHz TDM carrier in any one of the downlink spotbeams. See *id.*

⁵³ AfriStar-2 Application, Exhibit A at 4.

⁵⁴ See <http://www.itu.int/ITU-R/software/space/gims/index.html> for a description of the GIMS software.

⁵⁵ See *supra*, note 8.

⁵⁶ It would be very difficult to design an L-band space station antenna that would have be able to serve an area visible from the orbital location of AfriStar-1 and attenuate its emissions sufficiently within the combined service area of AfriStar-1 so as not to cause unacceptable interference to the AfriStar-1 BSS (sound) network.

⁵⁷ AfriStar-2 Application, Exhibit C at 1.

B. Use of Spectrum Resources

16. AfriSpace requests authority to operate using the entire 1452-1492 MHz frequency band. Its application, however, reveals that the AfriStar-2 system will, in fact, use only 2.6 megahertz of this requested spectrum in each polarization with a center frequency of 1479.5 MHz.⁵⁸ Accordingly, although we authorize AfriSpace to construct and launch AfriStar-2 with the ability to operate in the entire 1452-1492 MHz band, we authorize the AfriStar-2 satellite to operate using only 2.6 megahertz of spectrum in each polarization with a center frequency of 1479.5 MHz. If AfriSpace seeks to operate AfriStar-2 on any other spectrum in the 1452-1492 MHz band, it must file a modification application to do so.

17. Further, we recognize that Resolution 528 of 1992 World Administrative Radio Conference specifically limits satellite operations in the 1452-1492 MHz frequency band to the upper 25 megahertz of that band (that is, 1467-1492 MHz).⁵⁹ Resolution 528 also states that satellite operations in the lower 15 megahertz of this frequency band (that is, 1452-1467 MHz) are not to begin prior to the conclusion of a planning conference, which has not yet been held.⁶⁰ In addition, ITU Recommendation ITU-R F.1338 addresses sharing between GSO BSS (sound) and the Fixed Service (FS) in the lower 15 megahertz of the 1452-1492 MHz frequency bands, and recommends threshold levels of power flux density (pfd) for coordination of GSO space stations with FS analog and digital systems in this lower band segment.⁶¹ AfriSpace states that AfriStar-2 will exceed these coordination thresholds within its service area, and that it anticipates conducting extensive coordination prior to bringing into use satellite service in the 1452-1467 MHz frequency band.⁶² Because we are not authorizing AfriStar-2 to operate in this band, we need not further address this issue. Nevertheless, once the operations of AfriStar-2 have been successfully coordinated pursuant to Resolution 528 and ITU-R F.1338, AfriSpace may seek to modify its authority to include operations in these frequencies.

C. Legal Qualifications

18. In considering applications to launch and operate a new satellite system, we must determine whether the grant will serve the public interest. In making this determination, we consider whether the applicant is legally, technically, and otherwise qualified to launch and operate the satellite. AfriSpace already holds a Commission satellite license, and no one has questioned its legal qualifications to acquire a new satellite license. In addition, AfriSpace has

⁵⁸ AfriStar-2 Application, Exhibit B at 2-3 (stating that the AfriStar-2 system will utilize a single L-band spot beam covering Europe, North Africa, and South Asia, that will broadcast two TDM carriers of approximately 2.6 MHz of bandwidth each).

⁵⁹ See International Telecommunication Union, *Final Acts of the World Administrative Radio Conference* (Malaga-Torremolinos, 1992) (*Final Acts*).

⁶⁰ *Final Acts* at 239.

⁶¹ ITU Recommendation ITU-R F.1338, Threshold levels to determine the need to coordinate between particular systems in the broadcasting-satellite service (sound) in the geostationary-satellite orbit for space-to-Earth transmissions and the fixed service in the band 1452-1492 MHz (Question ITU-R 111/9) (1997).

⁶² AfriStar-2 Application, Exhibit C at 3.

provided information about the directors and officers of AfriSpace and its parent company, WorldSpace, and has provided a list of shareholders holding more than 10 percent of WorldSpace's shares.⁶³ Accordingly, we find that AfriSpace is legally qualified to hold a satellite license.

D. Technical Qualifications

19. AfriSpace has provided the required information on the technical parameters of AfriStar-2 pursuant to Section 25.114 of the Commission's rules.⁶⁴ Upon review, we find that AfriSpace has demonstrated compliance with the Commission's technical requirements, or has justified a waiver of these requirements.

1. Section 25.210(c) Waiver

20. Section 25.210(c) of the Commission's rules requires FSS space stations to have a minimum capability to change transponder saturation flux densities by ground command in 4 dB steps over a range of 12 dB.⁶⁵ The Commission previously dismissed an application for AfriStar-2 because the AfriStar-2 satellite has a maximum input attenuator value of only 9 dB and because AfriSpace had not sought a waiver of Section 25.210(c).⁶⁶ AfriSpace re-submits its application containing the same maximum input attenuator value as before, but now specifically requesting a waiver of Section 25.210(c).⁶⁷

21. We conclude that waiver of Section 25.210(c) is appropriate in this case. Generally, the Commission may grant a waiver of its rules in a particular case if the relief requested would not undermine the policy objective of the rule in question and would otherwise serve the public interest.⁶⁸ The policy objective of Section 25.210(c) is to prevent harmful interference between satellites by allowing operators to equalize the uplink power levels between carriers accessing adjacent transponders within the same satellite.⁶⁹ It can also assist in adjacent satellite coordination by adjusting the sensitivity of the satellite to satellite interference.⁷⁰

⁶³ AfriStar-2 Application, Exhibit E.

⁶⁴ 47 C.F.R. § 25.114.

⁶⁵ 47 C.F.R. § 25.210(c). Transponder saturation flux densities are a measure of a satellite's sensitivity or overall transponder gain. The higher the saturation flux density, the more potentially interfering is the uplink and the more resistant to interference.

⁶⁶ See Letter from Thomas S. Tycz, Chief, Satellite Division, FCC, to Brian Park, AfriSpace, Inc., File No. SAT-LOA-20040728-00150, DA 05-601, dated March 4, 2005.

⁶⁷ See AfriStar-2 Application, Exhibit D at 4-5.

⁶⁸ See Visionstar, Inc., Application for Modification of Authority to Construct, Launch and Operate a Ka-Band Satellite System in the Fixed Satellite Service, *Memorandum Opinion and Order*, 19 FCC Rcd 14820, 14826 (para. 15) (2004) (citing *WAIT Radio v. FCC*, 418 F.2d 1153, 1157 (D.C. Cir. 1969)).

⁶⁹ See Amendment of Part 25 of the Commission's Rules and Regulations to Reduce Alien Carrier Interference Between Fixed-Satellites at Reduced Orbital Spacings and to Revise Application Processing Procedures for Satellite Communication Services, *Second Report and Order and Further* (continued....)

22. We find that the purpose of Section 25.210(c) will not be undermined in this instance by permitting a maximum attenuator range of 9 dB, instead of 12 dB, because the lower maximum input attenuator value of the AfriStar-2 satellite is unlikely to result in harmful interference between satellites or hinder coordination with adjacent satellites.⁷¹ AfriSpace notes that it intends to operate with feeder link earth station with antenna diameters of 4.8 meters or larger and will uplink only digital carriers.⁷² Furthermore, AfriSpace observes that its research reveals only six other satellites that have plans to uplink in the feeder link frequency bands utilized by AfriStar-2 (*i.e.*, 7025-7075 MHz) and that all these networks also plan to uplink only digital carriers.⁷³ As a result, the chance of interference between all digital carriers will be less than the chance of interference resulting from all analog carriers or a mix of analog and digital carriers. AfriSpace also states that it will accept any incremental inference level that may result from its reduced attenuation range.⁷⁴ The Commission has waived Section 25.210(c) in the past where a waiver did not undermine the operator's ability to coordinate its system with other satellite networks.⁷⁵ For the same reasons, we find a waiver of Section 25.210(c) is appropriate for the AfriStar-2 satellite.

2. Orbital Debris

23. In its application, AfriSpace provides a narrative describing the design and operational strategies it will use to mitigate orbital debris.⁷⁶ AfriSpace states that it has assessed the likelihood of the release of debris during normal operations and states that there will not be any such planned release of debris.⁷⁷ It also states that it has considered possible collisions with small debris and/or meteoroids and has taken steps to limit the effects of such collisions.⁷⁸ These steps include the use of redundant systems and shielding, and careful placement of components to ensure that such a collision would not cause loss of control of the spacecraft or prevent proper

(Continued from previous page) _____

Notice of Proposed Rulemaking, CC Docket No. 86-496, 8 FCC Rcd 1316, 1317 and 1318 (paras. 5 and 12) (1993) (*Alien Carrier Interference Second Report and Order*).

⁷⁰ See *Alien Carrier Interference Second Report and Order*, 8 FCC Rcd at 1318 (para. 12).

⁷¹ We also note that AfriSpace will be the sole entity accessing the AfriStar-2 satellite, so that the underlying purpose of the rule to equalize the uplink power levels between carriers accessing adjacent transponders within the same satellite is not applicable in this instance.

⁷² AfriStar-2 Application, Exhibit D at 4. Antenna diameter is important because it affects antenna gain, which reduces the earth station power requirement. Increasing the antenna diameter produces narrower main beams, which decreases the potential of unacceptable interference to adjacent satellites.

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ See Applications of Intelsat LLC for Authority to Operate, and to Further Construct, Launch, and Operate C-band and Ku-band Satellites that Form a Global Communications System in Geostationary Orbit, *Memorandum Opinion and Order*, 15 FCC Rcd 15460, 15502-03 (para. 107) (2000).

⁷⁶ AfriStar-2 Application, Exhibit B at 3-5. See generally *Mitigation of Orbital Debris, Second Report and Order*, IB Docket No. 02-54, 19 FCC Rcd 11567 (2004) (*Orbital Debris Second Report and Order*).

⁷⁷ AfriStar-2 Application, Exhibit B at 3.

⁷⁸ *Id.*

post-mission disposal.⁷⁹ AfriSpace states that it has taken steps to limit the probability of accidental explosions during and after completion of mission operations.⁸⁰ During operations all battery pressures and temperatures will be continually monitored for conditions that could result in battery fragmentation, and corrective action will be immediately taken if there are any indications of an abnormal rise in battery temperature or pressures.⁸¹ In addition, AfriSpace states that steps will be taken at end of life of the AfriStar-2 satellite to ensure that all traveling wave tube amplifiers (TWTAs) are outgassed, all residual fuel is consumed, and all fuel latch valves are placed in an open position.⁸²

24. AfriSpace states that AfriStar-2 will be co-located with AfriStar-1 at 21° E.L. and that both satellites will operate within the required ± 0.05 degree station-keeping volume of space at this location.⁸³ As operator of both satellites, AfriStar states that it will be able to plan station-keeping maneuvers to maintain both satellites at the same nominal location without risk of collision with each other.⁸⁴ With the exception of AfriStar-1, AfriSpace states that it is not aware of any known satellites located at, or reasonably expected to be located at, 21° E.L.⁸⁵ AfriSpace also states that it will evaluate its launch and deployment plans and will, on a continuing basis, exchange information on orbital parameters and station-keeping maneuvers with the operators of satellites at adjacent locations.⁸⁶ AfriSpace also states it intends to contract with an appropriate agency that can supply information regarding large orbital debris that may pose a threat to AfriStar-1 and AfriStar-2.⁸⁷

25. AfriSpace confirms that it plans to dispose of the AfriStar-2 satellite at the end of its mission life by maneuvering it into a storage orbit above geosynchronous Earth orbit and has computed the recommended increase in the spacecraft's perigee altitude according to the formula developed by the Interagency Space Debris Coordination Committee (IADC).⁸⁸ AfriSpace has provided the data for the AfriStar-2 satellite that was used to compute this minimum perigee

⁷⁹ *Id.*

⁸⁰ AfriStar-2 Application, Exhibit B at 4.

⁸¹ *Id.*

⁸² *Id.* Furthermore, once disposed to the storage orbit, the spacecraft battery trickle charges will be commanded off and all automatic battery charging sequences will be disabled. *See id.*

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ AfriStar-2 Application, Exhibit B at 4-5. The IADC formula for determining the minimum perigee altitude above GSO for disposal of GSO spacecraft is:

$$235 \text{ km} + (1000 C_r * A/m), \text{ where}$$

C_r is the solar radiation pressure coefficient, and

A/m is the aspect area (m^2) to dry mass area.

altitude.⁸⁹ Because of this computation, AfriSpace states that it estimates a minimum increase in perigee altitude of not less than 293.443 km at end of life.⁹⁰ In order to achieve this minimum increase in perigee altitude, AfriSpace states that it will reserve 9.29 kg of propellant for end-of-life maneuvers.⁹¹ We conclude that the plan presented by AfriSpace for the AfriStar-2 satellite demonstrates its operation raises no public interest concerns related to orbital debris.

E. Bond Requirement

26. In the *Space Station Licensing Reform Order*, the Commission eliminated financial requirements then in place and replaced them with a bond requirement.⁹² The bond requirement is intended to ensure that licensees are financially able and committed to implementing their licensed systems in a timely manner and are not warehousing spectrum to the exclusion of other satellite systems. Under this requirement, any entity awarded a license for a GSO space station must execute a payment bond, payable to the U.S. Treasury, within 30 days of the date of the license grant.⁹³ The bond is payable upon failure to meet any of the implementation milestones included in every license, where adequate justification for extending that milestone is not provided.⁹⁴ Licensees may reduce the amount of the bond upon meeting each milestone.⁹⁵

27. AfriSpace requests that the Commission refrain from applying its milestone and bond requirements to the AfriSpace-2 satellite.⁹⁶ AfriSpace bases its request on two grounds. First, it argues that AfriStar-2 qualifies as a replacement satellite for AfriStar-1 and is thus not subject to milestones or bond requirements.⁹⁷ Alternatively, AfriSpace argues that there is good cause for waiver of the Commission's milestone and bond requirements.⁹⁸

28. We agree that good cause exists to waive the Commission's bond requirements for AfriStar-2. Although we conclude that AfriStar-2 does not satisfy the Commission's criteria for replacement satellites,⁹⁹ we concur with AfriSpace that there is no reason for concern about spectrum warehousing in this instance, because the orbital location and frequencies requested for

⁸⁹ *Id.* at 5.

⁹⁰ *Id.*

⁹¹ *Id.*

⁹² *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10826 (para. 170).

⁹³ Although AfriStar-2 is treated as NGSO-like for purposes of the selection of the appropriate space station licensing procedure, the application of the Commission's milestone and bond requirements depend on the actual physical nature of the space station, not on the ability of the space station to share spectrum with other licensees.

⁹⁴ *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10826 (para. 170).

⁹⁵ *Id.* at 10826-27 (para. 172).

⁹⁶ AfriStar-2 Application, Exhibit D at 1.

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ See *supra*, Part III.A.1.

AfriStar-2 are currently being used by AfriStar-1, which is already in operation.¹⁰⁰ Thus, a waiver in this instance would not undermine the underlying purpose of the Commission's bond requirement, which is to ensure that licensees are committed to implementing their licensed systems in a timely manner in order to prevent the warehousing of scarce orbital and frequency resources. In addition, the bond requirement helps to deter speculative satellite applications.¹⁰¹ It is unlikely that AfriStar-2 application is speculative because, for the technical reasons discussed above, no one else would be able to operate in AfriStar-1's frequency band in Europe.¹⁰² Accordingly, we waive the bond requirement for the AfriStar-2 satellite for this reason and need not address the other arguments of AfriSpace for waiver.¹⁰³

29. Waiver of the bond requirement is premised on AfriSpace launching the AfriStar-2 satellite prior to the removal of the AfriStar-1 satellite from service. Otherwise, it is possible that the orbital and spectrum resources currently utilized by AfriStar-1 could lie fallow in the interim period between the removal of AfriStar-1 from service and the launch of AfriStar-2, which would undermine the justification for our waiver of the bond requirement. Accordingly, although we will not impose the full schedule of construction milestones set forth in Section 25.164 of the Commission's rules,¹⁰⁴ we will condition the AfriStar-2 authorization on the launch of AfriStar-2 prior to the removal of AfriStar-1 from service.

F. Petition to Deny

30. Ondas has filed a petition to deny AfriSpace's application to launch and operate the AfriStar-2 satellite.¹⁰⁵ Ondas raises two principal objections to AfriSpace's application.¹⁰⁶ First, Ondas argues that authorization of the AfriStar-2 GSO satellite will preclude implementation of Ondas' NGSO BSS (sound) system in Western Europe in the 1452-1492 MHz frequency band.¹⁰⁷ Second, Ondas claims that authorization of AfriStar-2 by the Commission would raise

¹⁰⁰ AfriStar-2 Application, Exhibit D at 1.

¹⁰¹ *First Space Station Licensing Reform Order*, 18 FCC Rcd at 10826 (para. 167).

¹⁰² See *supra*, Part III.A.2.

¹⁰³ AfriSpace also argues that a bond is not necessary because it has every incentive to launch AfriStar-2 as soon as possible due to the increasingly degraded state of AfriStar-1, see AfriStar-2 Application, Exhibit D at 1, and because AfriSpace is providing public safety services, which the Commission has previously stated could warrant waiver of the bond requirement, see AfriStar-2 Application, Exhibit D at 3, citing *First Space Station Reform Order*, 18 FCC Rcd at 10825 (para. 169).

¹⁰⁴ 47 C.F.R. § 25.164.

¹⁰⁵ See Ondas Petition to Deny, *supra* note 22.

¹⁰⁶ In addition to these principal arguments, Ondas also argues that AfriStar-2 is not a replacement satellite under the Commission's rules. We concur, as discussed in Part III.A.1 of this Order. Although we agree with Ondas on this point, the fact that AfriStar-2 does qualify as not a replacement satellite under the Commission's rules does not constitute a basis for denying AfriSpace's application altogether.

¹⁰⁷ See Ondas Petition to Deny at 4.

jurisdictional issues between the United States and Europe that could call into question the ability of European regulators to establish and license BSS (sound) systems in Europe.¹⁰⁸

31. We conclude that Ondas's petition fails to raise sufficient cause to deny the AfriStar-2 application. As we observed above in Section III.A.2. of this Order, it is unlikely that any NGSO-like system, including Ondas's, would be able to operate within Western Europe in the 1452-1492 MHz frequency band without causing harmful interference to the existing AfriStar-1 satellite. AfriSpace has coordinated the operations of AfriStar-1 with affected administrations and the satellite is included in the ITU's Master Registry.¹⁰⁹ As a result, under the ITU's international Radio Regulations, the AfriStar-1 satellite network is "affected" by later-notified networks, and it is the responsibility of networks with lower ITU priority, such as Ondas's, to coordinate with the networks with higher priority. Accordingly, Ondas's ability to implement its NGSO network in Europe in the 1452-1492 MHz frequency band is already limited by the existing operations of the AfriStar-1 satellite, regardless of whether we authorize the launch and operation of the AfriStar-2 satellite.

32. In addition, we find that our authorization of the AfriStar-2 satellite will not prejudice the ability of European regulators to establish and license BSS (sound) systems in Europe. Our authorization of the AfriStar-2 satellite does not grant AfriSpace any authority for landing rights of the AfriStar-2 satellite in Europe. Indeed, we expressly condition the authorization of the AfriStar-2 satellite on AfriSpace's obligation to comply with the applicable laws, regulations, rules and licensing procedures for those countries it proposes to serve.¹¹⁰ Such a condition already exists for the operations of the AfriStar-1 satellite.¹¹¹ We stress that the launch and operation of the AfriStar-2 satellite is at AfriSpace's risk that it may not receive authority to operate in countries where it proposes service. Thus, the ability of European regulators to determine which systems are authorized to serve their markets is unaffected by this Order. Furthermore, the Commission is always prepared to coordinate Commission-licensed systems with those of other administrations, and to work closely with other administrations on spectrum management issues, as requested in the letter filed by the Agence Nationale des Fréquences.¹¹² The United States has already begun the coordination of the AfriStar-2 satellite with potentially affected administrations through the ITU coordination process. We will contact affected administrations, including the Republic of France, to begin discussions on spectrum management issues involving this authorization.

IV. CONCLUSION

33. As a result of this Order, AfriSpace is authorized to launch and operate the AfriStar-2 satellite in the geostationary-satellite orbit at the 21° E.L. orbital location. Specifically, AfriSpace is authorized to operate service downlinks from the AfriStar-2 satellite within 2.6

¹⁰⁸ *Id.*

¹⁰⁹ AfriStar-2 Application, Exhibit A at 3, 14-15.

¹¹⁰ For example, AfriSpace notes that its affiliate, WorldSpace UK Ltd., is already licensed in the United Kingdom to serve customers using the AfriStar-1 satellite. See AfriSpace Opposition at 4, n.9.

¹¹¹ *Id.* at 8.

¹¹² See Rancy Letter at 1.

megahertz of spectrum in each polarization with a center frequency of 1479.5 MHz, to utilize feeder links and telecommand links in the 7025-7075 MHz frequency band, to operate its telemetry link for the AfriStar-2 satellite at a center frequency of 1491.7 MHz, and to co-locate the AfriStar-2 satellite at 21° E.L. with the AfriStar-1 satellite currently in orbit. We also waive the Commission's bond and milestone rule provisions to the extent indicated herein. The authority granted by this Order is expressly conditioned on AfriSpace complying with the applicable laws, regulations, rules, and licensing procedures of any countries it proposes to serve.

V. ORDERING CLAUSES

34. Accordingly, IT IS ORDERED that the application of AfriSpace, Inc., IBFS File No. SAT-LOA-20050311-00061, IS GRANTED, and that AfriSpace, Inc. IS AUTHORIZED to launch a geostationary satellite, AfriStar-2, Call Sign S2666, at the 21° E.L. orbital location that is capable of providing BSS (sound) service in the 1452-1492 MHz (space-to-Earth) frequency band in accordance with the terms, conditions, and technical specifications set forth in its application, this Order, the International Telecommunication Union's Radio Regulations, and the Commission's Rules.

35. IT IS FURTHER ORDERED that AfriSpace, Inc. IS AUTHORIZED to launch and operate the service link transmitters of its geostationary satellite, AfriStar-2, Call Sign S2666, at the 21° E.L. orbital location to provide BSS (sound) service with two TDM signals, each having a peak EIRP of 59.8 dBW, a center frequency of 1479.5 MHz, and an allocated bandwidth of 2.6 MHz, one signal transmitted using right-hand circular polarization and the other signal transmitted using left-hand circular polarization.

36. IT IS FURTHER ORDERED that AfriSpace, Inc. IS AUTHORIZED to launch and operate the AfriStar-2 satellite at 21° E.L. capable of operating in the 7025-7075 MHz frequency band (Earth-to-space) for feeder link transmissions in accordance with technical specifications set forth in its application and consistent with our rules, unless specifically conditioned or waived herein.

37. IT IS FURTHER ORDERED that AfriSpace, Inc. IS AUTHORIZED to launch and operate the telemetry transmitter of its geostationary satellite, AfriStar-2, Call Sign S2666, at the 21° E.L. orbital location, to provide a telemetry signal with a center frequency of 1491.7 MHz, and an allocated bandwidth of 500 kHz, transmitted using right-hand circular polarization, and to operate its telecommand links with center frequencies of 7073 and 7074 MHz and an allocated bandwidth of 1 MHz.

38. IT IS FURTHER ORDERED that, pursuant to Section 1.3 of the Commission's rules, 47 C.F.R. § 1.3, AfriSpace, Inc. IS GRANTED a waiver of Sections 25.156 and 25.157 of the Commission's rules, 47 C.F.R. §§ 25.156, 25.157, to the extent necessary to enable the Bureau to consider its AfriStar-2 application on a first-come, first-served basis as set forth in Section 25.158 of the Commission's rules, 47 C.F.R. § 25.158.

39. IT IS FURTHER ORDERED that, pursuant to Section 1.3 of the Commission's rules, 47 C.F.R. § 1.3, AfriSpace, Inc.'s request for a waiver of Section 25.210(c) of the Commission's rules IS GRANTED as set forth in this Order.

40. IT IS FURTHER ORDERED that AfriSpace, Inc. is obliged to comply with the applicable laws, regulations, rules, and licensing procedures of any countries it proposes to serve.

41. IT IS FURTHER ORDERED that AfriSpace, Inc. shall prepare the necessary information, as may be required, for submission to the International Telecommunication Union (ITU) to initiate and complete the advance publication, international coordination, due diligence, and notification process of this space station, in accordance with the ITU Radio Regulations. AfriSpace, Inc. shall be held responsible for all cost-recovery fees associated with these ITU filings. We also note that no protection from interference caused by radio stations authorized by other administrations is guaranteed unless coordination and notification procedures are timely completed or, with respect to individual administrations, by successfully completing coordination agreements. Any radio station authorization for which coordination has not been completed may be subject to additional terms and conditions as required to effect coordination of the frequency assignments of other administrations. *See* 47 C.F.R. § 25.111(b).

42. IT IS FURTHER ORDERED that AfriSpace, Inc.'s request for waiver of Section 25.165(a)(2) of the Commission's rules, 47 C.F.R. § 25.165(a)(2), IS GRANTED.

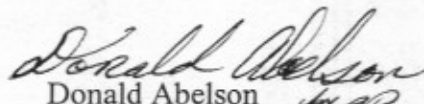
43. IT IS FURTHER ORDERED that AfriSpace, Inc.'s request for waiver of Section 25.164 of the Commission's rules, 47 C.F.R. § 25.164, IS GRANTED IN PART, and AfriSpace, Inc. must construct, launch and place its authorized satellite into operation prior to the removal of the AfriStar-1 satellite from service.

44. IT IS FURTHER ORDERED that the petition to deny filed by Ondas Spain, SL, IS DENIED for the reasons set forth in this Order.

45. IT IS FURTHER ORDERED that the license term for the space station is 15 years and will begin on the date AfriSpace, Inc. certifies to the Commission that its operations fully conform to the terms and conditions of this Order.

46. This Order is issued pursuant to Section 0.261 of the Commission's rules on delegated authority, 47 C.F.R. § 0.261, and is effective upon adoption. Petitions for reconsideration under Section 1.106 or applications for review under Section 1.115 of the Commission's rules, 47 C.F.R. §§ 1.106, 1.115, may be filed within 30 days of the date of the release of this Order.

FEDERAL COMMUNICATIONS COMMISSION


Donald Abelson
Chief
International Bureau