The UNIDROIT Space Assets Protocol: A Developing Country's Perspective

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Abstract

The use of space assets presents extensive opportunities for South Africa, as a developing country as well as the rest of Africa[1]. The need to develop technology to access space and use space applications for socio economic benefit has resulted to a number of African countries developing their own space assets.

The challenge is that most of these projects are mostly government funded and are often undertaken by government agencies with the involvement of the small companies. The small start-up companies usually faces difficulties in terms of raising of the necessary finance for space activity, in view of the large amount of monies involved and the risks associated with the development of the high value technology such as satellites.

In this paper, the new regime presented by the Space Assets Protocol will be examined. Four African space faring nations and their satellite development will be considered with emphasis on the benefits that these nations, can attain from the ratification and application of the Space Assets Protocol.

This will be followed by an analysis of the South African state of affairs and the legal requirements to achieve the implementation of the Protocol, drawing from the experiences consequential from the dynamics of the Cape Town Convention[2] (the Convention) and the Aircraft Protocol[3], which South Africa has ratified and incorporated into its domestic laws.

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1 Draft Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Space Assets, Article I(2)(l) defines space assets to include both high-value components - such as transponders, and, by extension, hosted payloads - as well as space assets as a whole, such as a satellite and all its relevant components, annual report, DCME-SP – Doc. 43, 9 February 2012, pp 8-9.

2 Cape Town Convention on International Interests in Mobile Equipment, entered into force in 2001 <www.unidroit.org/english/conventions/mobile-equipment/information.htm>.

3 The Protocol to the Cape Town Convention on Matters specific to Aircraft Equipment, entered into force on 1 March 2006.

1. Introduction

The use of space assets presents extensive opportunities for South Africa and the rest of Africa[4]. As the continent is stricken with major environmental and social challenges, space-based systems play a key enabling role in the attainment of data in a timely manner.
A few countries in African own space assets particularly for Earth Observations. The financing for the development of these satellites is customarily funded by government and its agencies with the assistance of international partners. This is so because they are normally in a good standing position to offer security for the whole asset. Unlike the small companies, to which the raising of the necessary finance for space activity presents challenges because of the large sum of monies involved and the risks associated with the development of the high value technology. This discourages nations that have ambitions to own space assets.
The international regime offered by the Space Assets Protocol, seeks to address this challenge, through a uniform regime facilitating affordable financing, especially from the developing countries[5].
For the purposes of the discussions in this paper, four African space faring nations and their satellite development will be examined, followed by the benefits that these emerging nations, in Africa, can attain from the ratification and application of the Space Assets Protocol.
An analysis of the South African state of affairs and the legal requirements to achieve the implementation of the Protocol will be addressed drawing from the experiences consequential from the dynamics of the Cape Town Convention and the Aircraft Equipment Protocol, which South Africa has ratified and incorporated into its domestic laws.

2. The Protocol

The space assets protocol applies to satellite manufacturers launch services providers, satellite operators and financial institutions. It was opened for signature at the Diplomatic Conference held in Berlin during February 2012. The Final Treaty was concluded amidst controversy surrounding its necessity and relevance emanating from some of the biggest satellite operators such as INTELSAT and SES.
It is of importance to note that the objectors to the Space Assets Protocol attacked the very basis and rationale for the existence of the Protocol, which is the reduction of transaction costs associated with financing of space assets. The supporters on the other hand, made emphasis to the success of the Aircraft Protocol to justify the need for the Space Asset Protocol.

4 Definition of space assets supra 1.
5 Annual report, supra 1, annex v, resolution 4.

These arguments against the Space Asset Protocol involved were, established by major satellite operators based in the West, and government delegates from other parts of the globe, including major space-faring nations such as China, India and Russia who, in one or the other, supported the elaboration of the Space Asset Protocol. This is interesting as the developing countries are mostly in need of finance since they have growing space activities.
The important factor for a developing country like South Africa, was the extent to which a commitment to advocate for a reduction in exposure fee rates and discounts on finance transactions was advanced as a *quid pro quo*[6]. This, it was felt, was necessary given the rights accruing to creditors within the framework of the Space Assets Protocol.

3. Benefits of the Protocol

The benefits to the protocol includes the reduction in cost of financing which is facilitated by firstly, the creation of an **new international security interest** in such assets vested in the conditional seller's interest under a title reservation agreement and the lessor's interest under a leasing agreement. Secondly, granting a creditor a wide range of **default and insolvency-related remedies** and easier means of obtaining **speedy interim relief**; and lastly, the establishment of an **electronic international registry** for the registration of such international interests. This serves as a notice to third parties about the existence of such security interests.
The legal certainty for creditors ensures and facilitates granting of financing outside the traditional spheres of operation for major financier of space business. The alluded benefits are crucial for less financially endowed and start-up entrepreneurial space commerce entities. Thus less developed countries will be able to secure space assets where assurances are provided that remedies are available and enforceable in cases of default.

3.1 Benefits and Rights of Creditors

A creditor would enjoy variety of rights and benefits under the Space Asset Protocol:

- Registered interests enjoy priority rights as against unregistered interests and subsequently registered ones;
- In cases of default:
  i. Access to debtor's rights, including the revenue stream or any performance by any person generated by the space asset;
  ii. Possession or control of the space asset;
  iii. Assistance by the Courts in various jurisdictions;
  iv. Rights in physically-linked assets preserved.

6 UNIDROIT 2012, DCME-SP – Doc. 19 rev, 6 March 2012, Resolution No. 4, presented by the delegation of South Africa, relating to the provision of reasonable discounts on exposure rates to debtors by financing organisations.

3.2 State's Rights Not Compromised

The Space Asset Protocol specifically provides that the rights and obligations of States under existing United Nations treaties on outer space[7] are not affected inn respect of:

- authorisation on launches and operation of space assets;
- regulation of transfers;
- Use of orbital slots or radio frequencies;
- Control of command codes;
- Conflicts with export or national security regulation;
- Right to receive public service for at least six months when the debtor seeks to remedy the default.

3.3 Benefits to Debtors Not Defined

The Space Asset Protocol does not contain any provision that illustrates any benefits to debtors. To cure that defect, the Diplomatic Conference adopted Resolution 4 to the Protocol to the effect that Contracting States, international, national as well as private financing institutions are encouraged "to assist developing contracting States by providing them with reasonable discounts or rebates on any exposure rates or similar charges levied by financing institutions"[8]. The implementation of this resolution will, in the main, convince most of developing countries that there is merit in the assertions that the Protocol will be beneficial to them. At the moment, the Protocol is geared towards assuring creditors' rights and protecting such. There is a need for assuring debtors as well.

4. Africa Context

African countries face tremendous hurdles in providing basic services such as health, education, food security, the prevention of disasters, emergency responses in case of natural disaster and general environmental and natural resources management. The development of space technologies and the awareness of the need for utilising space for addressing societal development issues have created conducive environment for increased investments in the space sector in Africa. With the increase in these activities and understanding of the space assets protocol is crucial in order for Africa to derive benefits.

For the purposes of this paper, it is important to assess and highlight whether in Africa, there is existence of space assets or an intent to launch space assets in the long or short term; the driver for the development of those space assets and as well as ownership of the assets; and whether these countries have ratified and implemented the convention and or aircraft protocol. This will help establish the importance and need of the space assets protocol in terms of wanting financing and the method in which they have implemented the Convention and Aircraft Protocol which is related to the space assets protocol.

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7 Draft UNIDROIT Space Assets protocol, Article XXXIV.

8 Provision on discounts and rebates.

4.1 Existence of Space Assets in Outer Space

Apart from the four ARMC Countries which are South Africa, Nigeria, Algeria and Kenya, the only other countries developing space programs in African is Tunisia and Egypt. The ARMC is intended to develop a constellation of satellites to provide real time, unrestricted and affordable access to satellite data to support effective environmental and resource management in Africa.

With the ARMC plans on the pipeline, these countries with national space programs have, as their short and long term objectives, the development of local space capabilities, especially the manufacture of space segments to support national developmental goals.

In particular, some of these countries own space assets and have already launched satellites in outer space. For instance, South Africa launched Africa's first satellite (SunSat 1) built by the University of Stellenbosch, in February 1999. In 2009 it launched its second satellite, the Sumbandilasat Sat, aboard a Russian rocket, built by a South African micro satellite company Sunspace (Pty) Ltd and owned by the government. This exercise has provided valuable skills and infrastructure for micro satellite manufacturing in the country. South Africa also plans to launch a cube-sat, developed by the Cape Peninsula University of Technology under its F'SATI programme. The launch will take place later in 2013.

Algeria launched its first satellite, Alsat 1 in 2002 as part of the UK-led Disaster Management Constellation (DMC) programme.

Nigeria launched its own first satellite in 2003 under the DMC programme. Nigeria, with Chinese support, also launched, Nigcomsat-1 in May 2007 (This satellite failed). This satellite was the Africa's first communication satellite. These satellites were constructed by the Surrey Satellite Technology Limited under the Nigerian government sponsorship for $30 million. Guildford, United Kingdom.

Egypt has developed and built an earth observation satellite, EgyptSAT-1 and has plans to finalize EgyptSAT-2 and DesertSAT in the 2012-2017 timeframes. Egypt seeks to build local space capability in the fields of remote sensing and peaceful applications of space sciences to address national development objectives and plans. Tunisia has also launched a satellite joining the few space faring developing nations in Africa.

Kenya inherited launch facilities (San Marco launch platform) from the Italian space programme, and has no satellite of its own in outer space.

4.2 Driver for Space Assets

It is critical to understand whether the development of assets is intended for commercial or public use. This important because commercial unlike government financed activities would benefit from the space asset protocol in terms of financing.

The main driver for the development and launch of the satellites in Africa is access to satellite data for end users in various fields such as disaster management, food security, public health, infrastructure, land use, and water resource management. This data would thus support activities such as urban development, land use monitoring, and mapping for the surveillance of climate change effects. Socioeconomic benefits have are the main reason for the development of

space assets in the African continent. The exception is the Egyptian case, space activities have been largely concentrated on security concerns and the Nigeria case in which some of its 5 satellites focused on communications.

4.3 Ownership of Assets

The space technology development has been considered by both the public and private sectors in Africa as a potential enhancing factor in long term development, despite the high cost. The involvement of the private sector in the development of the satellite is fundamental. This is evident in the case of South Africa, Nigeria and Algeria. To the other countries such as Kenya, the use of space applications increasingly plays a part in various development and environmental challenges.

Despite, private sector involvement, the financing for the development of these satellites is customarily from government, governmental agencies, which are in a good standing position to offer security over the space assets. With the growing trend towards the commercialisation of space that is being observed from the developed countries, Africa will derive value in implementing the space assets protocol.

4.4 Practical Implementation Experiences from the Aircraft Protocol in South Africa.

In Africa, only South Africa is a Party to the Convention and the Aircraft Protocol, which opened to signature on 16 November 2001[9]. In order to implement the Convention and the Aircraft Protocol, South Africa enacted an act[10] which was adopted in 2007. The incorporation into national laws was important due to fact that in order to qualify for discounts on financing rates, this requires adherence to a strict framework created by OECD, to determine whether a country is fully implementing the Convention and the protocol.[11] The consequence is that the whole of the Convention is applicable when dealing in the Protocol and declarations made under the Convention are deemed to have made under the Aircraft Protocol unless the contrary is stated.

4.4.1 The responsible Body for Implementation.

The primary responsibility for the regulation of aviation and the registration of aircraft rests with the South African Civil Aviation Authority (SACAA)[12] and the International Air Services Licensing Council and the Air Service Licensing Council.

The South African Act, incorporating the convention and the Aircraft protocol also includes a definition of assets to also include space assets. It is not clear whether South Africa intended to include space assets in this legislation as this

9 South Africa ratified both the convention on and the aircraft protocol.

10 Convention on International Interests In Mobile Equipment Act, 6 July2007, <www.saflii.org.za/za/legis/num_act/coiiimea2007610.txt>.

11 OECD framework.

12 Established in terms of the Civil Aviation Act, 2009 (Act No. 13 of 2009).

was before the space protocol was adopted. The challenge in South Africa is that the Aviation and Space regimes rest with different bodies. The body in charge for all space maters is the South African Council for Space Affairs (SACSA).Coordination between these authorities is necessary to avoid duplication.

4.4.2 How Are the Interests Registered?

In terms of the Rights in Aircraft Act, other than the owner (or agent of the owner), only a mortgagee may register an aircraft mortgage over an aircraft or share in an aircraft[13]. Registration on the South African Aircraft Register, therefore, does not indicate true ownership. The Rights in Aircraft Act does not make provision for any other interest or security to be registered over an aircraft on the South African Aircraft Register.

4.4.3 Third Party Ownership for Parts of the Aircraft

Article 2 of The Cape Town Convention read together with Article VI of the Protocol to the Cape Town Convention (Aircraft Equipment Protocol) allows various rights in various aircraft objects (such as engines) to be registered separate from the rest of the aircraft. Article V of the Aircraft Equipment Protocol provides that such registration remains effective indefinitely and Article XIV provides that the ownership of the engine is not affected by installation on an aircraft. On the other hand national registration of objects launched in outer space rests with the SACSA. This does not provide for component parts to be registered separate from the rest of the spacecraft. If South Africa were to adopt he Protocol, it would need to cater for the registration of assets under its legislation.

4.4.4 Termination of Lease for Lessee Default

Article 10 of the Cape Town Convention, which, pursuant to the necessary declarations having been made, is applicable in South Africa, provides that where an event of default has occurred a lessor may terminate the Lease Agreement and take control or possession of the aircraft without prior permission or court order.

4.4.5 Procedure or Interim Relief in Case of Default

Article 13 of the Cape Town Convention, provides that where a creditor presents evidence of a debtor's default, the creditor may, pending final determination by a court, apply for interim relief in the form of, preservation of the aircraft and its value, possession, control and custody of the aircraft, immobilisation of the aircraft and the right to any income derived from managing the aircraft. Alternatively, South African common law also allows the lessor to apply for an interim interdict preventing the aircraft from being removed from its location by the lessee pending a final determination by a court.

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13 Convention on the International Recognition of Rights in Aircraft Act 59 of 1993.

4.4.6 Procedure for a Lender to Enforce a Mortgage over the Aircraft or Engine When the Borrower Is in Default

Article 8 of the Cape Town Convention provides that where an event of default has occurred, a charge under a security arrangement may, subject to the chargor having agreed thereto at any time,

i) Take possession or control of the aircraft;
ii) Sell or grant a lease of the aircraft; or
iii) Collect any income from the use of the aircraft.

Alternatively, if the mortgagor has not consented to the procedure under Article 8, the mortgagee would have to issue summons against the lessee.
As this is a liquidated debt, if the lessee enters an appearance to defend, the mortgagor would be entitled to apply for summary judgment on the basis that the lessee has no bona fide defence.

5. Conclusion and Recommendations for the Implementation of the Protocol

The extent to which the developing countries will embrace the Space Asset Protocol largely centres on the perception of the direct benefits emanating from the implementation of the Cape Town Convention system. The challenge is that only a few African countries have implemented the Cape Town Convention. This implementation should be guided by each country's policy focus on space use and the practical application of space technologies to address socio-economic developmental needs.
The African States intending to ratify the Protocol should prior to depositing their instruments of ratification

- Obtain input from their domestic space industry as to what their financing requirements are; and
- Carefully assess whether the insolvency remedies of the Convention and Protocols are compatible with their existing constitutional and other laws;
- States must then pass legislation to execute the Protocol into their domestic law and amend other relevant legislation such as the Insolvency Act to cater for the unique legal concepts contained in the Space Assets Protocol.