

# TongaSat: its obligation to Tonga and the Pacific region

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## Abstract

TongaSat, otherwise known as the Friendly Islands Satellite Communications Ltd., reckons itself as a toddler in the world of telecommunications. But since TongaSat has taken Tonga, a small Pacific island nation to the galaxies, it has also made it its responsibility to include other Pacific countries in its share of the 'glitter'. This short paper is to put TongaSat within the context of the Pacific region with the challenges to the rest of the world powers on telecommunications.

## Introduction

TongaSat is otherwise known as the Friendly Islands Satellite Communications Limited. It is a satellite company in Tonga and is majority owned by Tongans with the Government of Tonga as a shareholder.

The Kingdom of Tonga through TongaSat has exercised its ITU rights to acquire access to satellite orbital positions. Thus TongaSat has that vision of developing these orbital resources into a global network. Therefore, TongaSat has indicated that opportunities exist for the provision of satellite capacity to Pacific Island Nations on a commercial joint managed basis.

In this paper, I will present you with the background for TongaSat, its achievements so far, its global vision, and other concepts.

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## Background

In 1988, TongaSat made the initial filings for 27 orbital locations. Subsequently, in 1990, they were reduced to only 6 orbital locations with the 7<sup>th</sup> orbital location filed later. However also in 1990, TongaSat initiated an International Organising Body to create a commercially based Asia Pacific Regional System with a global overview. But due to the idea being alien to the satellite telecommunications industry at the time, this vision could not be implemented yet.

However, there were *windows of opportunities* that TongaSat had perceived at that time:

- TongaSat had access to orbital resources; the Pacific Islands had expressed their needs to access more advanced telecommunication systems; and TongaSat has a global vision to create a regional telecommunication network based on the Tongan orbital resources.
- TongaSat would be the catalyst to implement a regional network for the Pacific Islands. Therefore, it was inviting the Pacific island-nations and territories to jointly manage a Pacific Island Regional Satellite Network. Through this network, services throughout the region will be provided at a reasonable cost.

## TongaSat's global visions

TongaSat's formation of the following visions has been the driving force in all its efforts and goals in its struggle to achieve its business endeavour. They include the following:

- To establish a regional satellite telecommunications networks in the Asia, Pacific, Americas, African, European countries and CIS regions.
- The regional networks will in turn be developed and integrated to form a Global network.
- The network will be commercially based and will allow and encourage the participation of all interested nations and operators.
- To specifically facilitate the development of a network in the Pacific region to provide inter-island and trans-Pacific telecommunications.

## Development of regional networks and businesses

TongaSat's visions aim at allowing participation by all interested administrations, operators and companies in a

**Table 1. The available satellite resources in their nominal orbital positions**

Band designation	14	70	83.3	130	134	138	142.5	170.75	257
Conventional C-band	*	Yes	*	Yes	*	*	Yes	*	*
Extended C-band	*	Yes	Yes	Yes	*	*	Yes	Yes	*
X-band	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Conventional Ku-band	*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	*
Extended Ku-band	*	Yes	Yes	Yes	Yes	Yes	Yes	Yes	*
Ka-band	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\* = not yet available

cojoint venture but does not aim to take control of the activities of these organisations.

It is also convinced that the implementation of such regional networks can only be for the benefit of all participants allowing them to access economies of scale, shared costs and such entities.

### A regional satellite network for the Pacific?

The question above stands as a very big challenge for any one in the satellite business in the Pacific, but TongaSat had decided to pursue its establishment as a mark of an achievement of a possibility in the arena of a very challenged impossibility. However, to establish the above, TongaSat must always bear in mind the pride of the Pacific nations of their varied yet valuable heritage and cultures, their identities and needs. Also, it must be worth considering that most Pacific island nations are small with small economies and limited resources.

As with other groupings that share common concerns and interests (like the Arabs, the Europeans, the Africans and so forth), TongaSat believes that the Pacific island nations can benefit from a jointly managed and operated regional satellite communications network.

### The joint management concept

TongaSat has envisioned how vital it would be for a joint management on this venture. It does not want control of the network, but it recognises national objectives and aspirations for each nation to control and manages its own telecommunication services.

It also recognises that joint management will allow the expertise of many nations to be pooled for the mutual good without allowing a dominant or controlling interest.

### The satellite resources

The Kingdom of Tonga has access to a number of orbital positions of long standing which are relatively free of co-ordination difficulties. These seven orbital positions of long standing are namely the 70°, 83.3°, 130°, 134°, 138°, 142.5°, 170.75°E. We also had filed for C, Ku, Ka and L/S. There are two more recent positions namely 14° and 257°E. We also filed for X, Ka and L/S.

In Table 1, all the available satellite resources to date are shown. TongaSat orbital position at 170.75°E is available for the implementation of a Pacific Regional Network.

As one can see, TongaSat is using its available resources to build a regionally based-networks to implement its global vision.

### Conclusions

It is still the strong belief of TongaSat that operators and governments of the Pacific island nations can achieve more in togetherness than by acting separately. Therefore, TongaSat offers the vehicle to achieve this objective.

There are potentially substantial savings to be made through the joint provision of a satellite communications network. TongaSat proposal envisages joint management and operation of a satellite network operating at a Tongan national orbital position. The proposal is not a threat to existing organisations and companies who are hereby encouraged to come forward and participate.

TongaSat, as an organisation from a Pacific island nation believes that the objectives and goals of the Organisation can be significantly enhanced by the members working together to implement a Pacific Islands Satellite Communications Network as described in this paper.

### References

Available from the author on request.