

# Innovation Out of Thailand



■ Niran Tangpiroontham (left), INFOSAT's Chief, and Alexander Wiese (right), TELE-satellite's Editor-in-Chief, in front of INFOSAT's head office in Nontaburi, a suburb northwest of Bangkok.

Even a long-standing product such as a C-band antenna still has room for improvements. A few months ago, INFOSAT in Thailand introduced a 1.5-meter single-segment antenna to the market. The result was immediate success! The driving force behind this new product is Niran Tangpiroontham, founder and owner of the company INFOSAT. He is not new to the pages of TELE-satellite: we previously reported on Niran and his new ideas in TELE-satellite issues 02-03/2007 and 02-03/2008.

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Available online starting from 29 May 2009

■ This picture appeared in the 02-03/2008 issue of TELE-satellite...



■ ...and this picture is from the same spot in March 2009; where an open field was only a few months ago, today stands a new factory.

■ Don't climb on the antennas! This warning is not meant for the new single-segment dish.

Niran demonstrates that the new antennas are actually quite sturdy. "Installers love this new dish", he proudly comments about his newest product, "They no longer have to spend time screwing multiple segmented antennas together, the installation work is finished quicker and the new antennas are quite robust."



■ Another INFOSAT innovation: Niran shows us a prototype C/Ku-band multi-room LNB to be fed into multiswitches. The C-band LNB is fitted with an output for horizontal and vertical polarizations while the Ku-band LNB only has a vertically polarized output. It would be used in the domestic market in Thailand for reception of THAICOM at 87.5° east in C-band and NSS 6 at 95° east in Ku-band. "The engineers are working on fitting the Ku-band LNB with both polarizations but the technical requirements are quite high", explains Niran as to why these Combi LNBs can only receive one polarization in the Ku-band.

The most recent TELE-satellite INFO-SAT article in early 2008 included among other things a picture of a vacant field. That was then. Today there's a new manufacturing facility in this field: "That is the INFOSAT Factory Number 2" explains Niran proudly. He gestures to the construction workers who are putting in the finishing touches: "By the time this issue is printed, the factory will be fully operational." Factory Number 1 is at its limits: just a few weeks ago the manufacture of the previously mentioned single-segment dishes had begun.

"Factory Number 1 is 2400 Sq-m in size; factory number 2 is 2500 Sq-m", explains Niran. While the first factory is owned by INFOSAT, the second one was rented. "This saves on costs which I have used to invest in new machines", reveals Niran regarding his plans. He was able to acquire two additional punching machines for a total of five that are used to punch the required holes in the 0.5mm thick aluminum rolls for the mesh antenna segments.

By far the largest investment would have to be the spray painting system: he uses this to spray paint the antenna struts and segments exactly the way he wants. "All of these new machines required an investment of over US\$ 400,000", comments Niran. Factory number 1 focuses

■ The first assembly step for the INFOSAT single-segment dish: the antenna framework is welded together on a ring table. The worker in the foreground is mounting the support plate in the center.





■ The mesh segments are screwed into the antenna frame – the INFOSAT 1.5-meter single-segment dish is finished.



■ Off to shipping: three antennas are packaged together. Niran is seen here holding one of these packages. A maximum of 20 of these packages fit on a pallet which in most cases is the minimum quantity for an international order.

on production and assembly of the dish antennas while factory number 2 is used for painting the finished antennas, packing them and preparing them for shipping.

All of this financial investment makes you stop for a moment and think: did Thailand somehow escape the current worldwide economic crisis? "No, not all", replies Niran, "it began last September with a steady decrease in the number of purchase contracts." At first Niran didn't have any answers. His employees began to get nervous. Then Niran came up with the solution: "The prices for aluminum and steel, the two most important raw materials used in manufacturing dishes, had fallen, and starting January 1, 2009 I reduced the INFOSAT antenna prices by 10%." No sooner were these new prices made public, the orders started coming in. "Now we very often find ourselves working seven days a week in order to handle all of these orders", explains Niran with a smile on his face. He is quite satisfied with his price-reduction action. The available stock of unsold antennas that up until the end of 2008 filled the factory floor has since been completely depleted. "Today, an antenna is sold as soon as it is produced; dealers have to wait for their orders to be shipped!" The first factory was capable of producing a maximum of 10,000 dishes a month. With the start up of the second factory, capacity has increased to 15,000.

Niran concedes that the economic crisis also has its advantages. Prices for raw materials aren't the only thing that have come down, payroll demands have also fell silent. "70% of our employees are loyal; 30% however wouldn't hesitate to move to another company even if they were offered only a 1% increase in pay." Employee loyalty is an important aspect for a company with 60 factory workers and 30 in administrative positions.

At lunch in the Chao Praya River Restaurant, directly next to the new factory and only 20 km from downtown Bangkok, Niran explained his plans for the future: "The most popular receiver sold in Thailand is the ZIMPLE Box 4 at over 30,000 receivers per month." Up until now, he has been acquiring these receivers, manufactured to his specifications, from China. But he pays 20% import duty and



**■ Pink antennas? Who would buy something like that? Jiraporn Tangpiroontham, Niran's better half and antenna production manager explains, "5% of our antennas are sold in pink. The buyers are women who seem to prefer that color." Most of the dishes that are sold however, roughly 60%, are not colored primarily because it is the least expensive version. 35% are ordered in black. Other colors offered by INFOSAT are only available by special order.**



**■ Currently, the ZIMPLE 4 Box receiver is still produced in China according to INFOSAT's specifications. Before delivery to customers, INFOSAT's own H20 software along with updated transponder data is uploaded into the receivers.**



**■ INFOSAT's new, second factory, that will have been put in service with the publication of this issue of TELE-satellite.**



■ The shipping department: here the daily dealer deliveries are prepared.

the receivers are marked 'Made in China'. If he were to import the individual pieces SKD (Semi Knocked Down), import duty would be only 10% and the receivers could then be stamped 'Made in Thailand'. "Some countries prefer 'Made in Thailand'", ponders Niran regarding the inviting idea of making receivers himself. At the same time he is thinking about the additional expenses that would be directly connected with this idea. Niran is wrestling with the prospect of whether or not he should jump on board the receiver manufacturing bandwagon or remain on the more comfortable path of importing completed receiver boxes. Officially, Niran has not yet made up his mind. But wait...if you take a look inside the new factory you'll see that a spot has been reserved for a receiver assembly line...

Somehow, Niran would like to reach his ambitious goal. Even though 2009 has been officially categorized as a recession year, he has set quite a goal for himself: "In 2008, INFOSAT realized US\$ 10 million in sales, for 2009 I am expecting a 20% increase!" His chances for reaching this goal are actually quite good!



■ Workers are seen here busy with the installation of a new spray painting system that will be fully operational by the time this issue of TELE-satellite hits the newsstands.