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Para  
To

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From

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Asunto  
Subject

**Información sobre Comsat  
(Lockheed Martin Global  
Telecommunications)**

Estimado Miguel Angel Granados Chapa,

Por instrucciones del Ing. Sergio Autrey, le hago llegar este resumen informativo sobre Comsat, actualmente también conocida como Lockheed Martin Global Telecommunications (LMGT).

El cambio de nombre obedece a que Comsat fue adquirida hace algunos meses por la empresa Lockheed Martin, pasando a formar parte de un grupo de empresas que llevan el nombre de LMGT.

Si requiere más información, por favor, no dude en contactarme.

Saludos cordiales,

Fernando Morett  
Director Ejecutivo de Comunicación Corporativa



## RESUME

### 1.0 Introduction

LMGT Systems and Technology is pleased to offer the services of its Satellite Consulting and Operations Office (SC&O) in El Segundo to support various Commercial Spacecraft Programs. COMSAT has maintained a field office in El Segundo since 1968 and an office in the Bay Area, as work required, since 1977 and continues this line of business under LMGT. This combined East Coast-West Coast team, including the former COMSAT Labs in Clarksburg Maryland, is the most experienced commercial satellite consulting group in the industry.

### 1.1 SC&O Experience

SC&O has numerous on going programs at this time in both Southern and Northern California. LMGT Systems and Technology has a full staff and guarantees that all necessary areas of expertise will be available to Spacecraft Owners/Operators when such technical support is required. The average length of experience for the LMGT team is well over 25 years. The team has been formed primarily from the ranks of the original COMSAT World Systems and COMSAT General staffs that trace their heritage back to the early INTELSAT monitoring teams. LMGT has added senior specialists from Aerospace Corporation, the Jet Propulsion Laboratory, Hughes Space and Communications, and other aerospace firms to provide a comprehensive collection of engineering talent.

LMGT Systems and Technology has relevant experience with nearly all the spacecraft manufacturing organizations in the world. We have supported customers with in-plant monitoring teams at HSC, SS/Loral, Alcatel Cannes (formerly Aerospatiale), the previous Lockheed Martin facility in Princeton, New Jersey, and the Matra Facilities in Toulouse, France and in Stevenage, England. We have also has direct experience with all major launch services organizations currently providing services, and are actively supporting two missions with organizations such as Sea Launch who have recently entered the market.

As mentioned, we are currently supporting several programs. We are the consultants on the XM Radio Program where two HS 702 spacecraft are being built. We have two teams at LMCSS in Sunnyvale to support the N-Sat-110 Program and the New Skies 7 Program. We have a long-standing relationship with the SES organization in Luxembourg and hope to continue that work with on-call support for their Astra 2C, Astra 2D, and Astra 1K satellites.

Within the last 24 months, we have completed support to the JCSAT 6 Program, the Saurax 5 Program, and the Sirius 3 Program. We supported the spacecraft integration, test and launch site activities for the Orion 3 spacecraft. Recently we concluded our support to the Egyptian Satellite Television Company for the successful launch of their NILESAT 101 spacecraft. NILESAT was delivered under a turnkey contract by MATRA Marconi Space in Toulouse.



We have been involved with many of the commercial spacecraft designs at Hughes since the INTELSAT I/II days. We have provided technical support to customers purchasing communication satellites from Hughes for more than 30 years. Our long experience representing customers has also allowed us to become very familiar with the Hughes approach to technical and non-technical issues.

The consulting team is headed by Managing Director, Keith Volkert, who is familiar with many spacecraft including the FS 1300, A2100 family, HS 601 family & HS 702 designs. We believe that the customer organizations receive the most benefit from a combined on-site customer/consultant team. This approach has worked very well, and we believe our customer response is proof of satisfaction. Japan Satellite Systems, Inc., has hired SC&O for their JCSAT 3, JCSAT 4, JCSAT 5, JCSAT 6 spacecraft programs, and recently selected us to perform the evaluation of the responses to their JCSAT 7 RFP. In somewhat similar fashion we were selected to provide monitoring for the Satmex 5 Program, (previously called Morelos 3) after supporting the original Telecommunications de Mexico programs Morelos 1 and 2, with support on Ground Systems and Launch Services during the Solidaridad Program.

Although we have over 30 years experience Table 1-1 provides a list of commercial Communications Satellite Programs where SC&O have provided on-site teams over the most relevant time period namely the last five years.

Table 1-1. Last Five Years Experience

Program Name	Customer Owner	Date To - From	Prime Name	Contract
JCSat 4	Japan Satellite	1995-1997	Hughes	T&M
AsiaSat 3	Asia Satellite	1996-1998	Hughes	Fixed
JCSat 5	Japan Satellite	1996-1997	Hughes	T&M
Satmex 5	Satmex	1997-1999	Hughes	T&M
JCSat 6	Japan Satellite	1997-1999	Hughes	T&M
Nilesat	Egyptian Radio/TV	1996-1998	Matra Marconi	T&M
Astra 2A	SES	1997-1998	Hughes	T&M
Orion 3	Orion Network Systems	1997-1999	Hughes	T&M
Sirius 3	Swedish Space	1997-1998	Hughes	T&M
XM Radio	World Space	1998 present	Hughes	T&M
ICO	ICO	1996-present	Hughes	T&M
NSAT 110	JSAT & SCC	1999-present	LMCSS	Fixed
NSS-7	New Skies Sat	1999-present	LMCSS	Fixed



LMGT Systems & Technology feels strongly that protecting customer interests during the satellite procurement cycle requires the right people on the floor or in the design area interfacing with the Contractor team 24/7 if necessary. This is especially true for the programs where new technologies are being incorporated. This requires the full team which we have on site. We also believe this real time protection should be considered as an insurance policy to protect the Owner/Operator's business. Our record of successful on-orbit performance for spacecraft programs where we have provided consultant services is much better than the set of programs without on site full team monitoring.

## 1.2 Brief History of COMSAT

LMGT and Comsat have merged and the details of this are covered in Mr. Meadows letter to Mr. Zamudio. This prior information is included for continuity and background information.

COMSAT pioneered the development and advancement of commercial satellite communications in the United States and around the world.

The company was founded in 1962 by mandate of the U.S. Congress, with the mission, to foster global telecommunications by means of commercial satellite development. COMSAT pursued and realized that goal through sponsorship and leadership of international consortia, technical assistance to participating organizations, and formation of its own U.S. domestic and international satellite systems. Today, more than a third of century later, COMSAT continues to make its original mission a touchstone for its increasingly diverse business activities.

### This section is updated by the Meadows letter

The former COMSAT Laboratories is celebrating nearly four decades as a pioneer in the field of satellite communications. Established in 1967, COMSAT Laboratories' charter was to perform leading-edge research and development in support of the INTELSAT Satellite System. The success of the INTELSAT global satellite system is a testament to the early pioneers at COMSAT Laboratories.

With a strong history in advanced communications technologies, COMSAT Laboratories is focused on providing solutions to customers worldwide for their seamless interoperability of satellite and terrestrial communications networks and efficient bandwidth utilization requirements.

This business unit, the Satellite Consulting and Operations Group, traces its origins to the very first organized Satellite Engineering Consulting effort when a group of engineering



specialists were asked to help ensure that the early INTELSAT spacecraft would be designed, built and tested properly. The Satellite Consulting and Operations Group has strong ties to that early pioneering group who demonstrated the benefits of independent monitoring. That legacy has been copied, but never duplicated.

Today's Consulting Group still uses the same principles to reduce risk and help ensure the customer's interests are protected. Through the years, COMSAT has undergone organizational changes due to Regulatory and Non-Regulatory work. The Consulting Group has operated under COMSAT World Systems and COMSAT General Corp., and more recently the Consulting Group was placed in COMSAT Laboratories, which provides a beneficial situation for customers in having closer ties with the technology resources of the Laboratories. This organization under the Labs continues within LMGT.

Mr. Keith Volkert is responsible for the overall COMSAT support. The daily operations of the core team will be led by a designated Program Manager, who will also serve as one of the technical specialists.

*The other aspects of the organization are in the Meadows letter*