Mr. Harold Weisberg Route 12 Frederick, Maryland 21701 5005 South Barton Lyndhurst, Ohio 44124 8/10/76

Dear Mr. Weisberg;

XX

I'm sorry to hear about your recent attack of phlebitis.

I must also apologize for having taken so long in answering your letter of the 15<sup>th</sup> of July, but I was waiting for Itek's response to the questions 1) if Itek or their people have had prior government connections of any kind, 2) if they hold government contracts, or 3) if some of their people have been with the CIA. It's been over 2 weeks now and they havn't answered like they did the first time. However, maybe the five pages I'm sending you out of their 1975 annual report will help. Itek does indeed have government connections, past and present, and they do indeed have government contracts. The pages I'm sending you prove it.

The World Book Dictionary gives the definition of X "affiliated" as "associated; connected: The same dictionary gives the definition of "associated" as "joined in companionship, interest, action, etc." and gives as a synonym "allied". So they ARE connected, they ARE affiliated, they ARE connected, they DO hold government contracts, and they lied to me in the letter of 6/30!

I should have spotted this in my first letter to you but I don't have the years of investigating capabilities that you do.

Enclosed is my payment for FRAME-UP and POST-MORTEM. Also, you might be interested in an editorial that appeared in the Cleveland Plain Dealer and my answer to it. They are all enclosed.

So, until myxxxxx our next investigation

I remain,

JERRY S. GKEISSER

# Government Operations

Sales for our government divisions were down from the previous year as a result of reduced government funding for defense systems. Operating income was also down due to lower sales and technical problems which resulted in substantial fixed-price contract losses at both the Optical Systems and Applied Technology Divisions.

Increasing competition and a relatively higher proportion of fixed-price development contracts are some of the changes affecting the nature of our government business operations. These changes have made it necessary for litek to devote more of its resources to carefully selected advanced product development. For example, we anticipate that electro-optics will be the basis for many of the reconnaissance systems of the future. As a result, our Optical Systems Division has built and staffed new laboratories for the development, production and analysis of electro-optical cameras and other related surveillance and image processing systems.

Because of the increased competition and the reduction in U.S. government funding, both our government divisions are turning increasingly to the international marketplace. International market demand for our systems has been increasing. Currently, 37 percent of Applied Technology's sales are to overseas customers. Optical Systems, which has just recently started to market internationally, has export licenses for 15 countries and 12 of them have expressed interest in the division's systems. We expect that an increasing percentage of our government business will come from these international markets.

We anticipate that domestic contracts with the U.S. Department of Defense for both electronic countermeasures and optical reconnaissance systems will remain at their present levels through 1976. NASA's Space Telescope program has been delayed again and other major NASA programs for space optics are not likely to be funded next year. We do, however, expect several contracts in those areas where we are developing new and advanced products. Some of these are described on the following pages.

In summary, given continued success in international markets and judicious selection and effective management of contracts, we anticipate reasonable and steady growth for both our government divisions.

Salvatore Macera



Salvators Macera. Executive Vice President – Government Operations

# Applied Technology

At the Applied Technology Division in Sunnyvale, Calif., Itek designs and produces complex electronic defense systems for the United States government and for a number of overseas countries.

The nature of electronic defense systems is inherently cyclical. For example, a surface-to-air-missile guidance system is designed to track and "lock on" to aircraft; electronic countermeasures (ECM) are then developed to mislead or jam the missile radar. The missile radar's capabilities are subsequently improved so that it can get by the countermeasures, the countermeasures, in turn, are advanced to cope with the new threat, and so on.

The electronic defense systems business started to mushroom just ten years ago. It was in 1965 that Applied Technology received its first major production contract. In 1976, the U.S. Department of Defense plans to spend some \$780 million on electronic defense systems, including passive radar warning systems and active jammers to confuse unfriendly radar.

During 1975, the Applied Technology Division won several key engineering development programs. These awards resulted from an increased emphasis by the United States government and our NATO allies on upgrading their defense posture by improving ECM capability on land, sea and all vehicles. One of the awards was for a key development program to supply an advanced computer-based radar warning system to the United States Navy. The complex system uses the Applied Technology Advanced Computer (ATAC) as one of its components.

Two other significant development contracts awarded during the year were for the United States Air Force Compass Tie power management program, and for the environmental qualification phase of the Advanced Radar Warning System (ARWS). It is anticipated that the ARWS will be the first production system using ATAC that the division will deliver. Other contract awards during the year for ATAC came from both United States and other customers, who will use it in electronic defense systems applications.

The AN/ALR-45 radar warning system for the United States Navy contributed much of the division's production business during the year, and resolution of technical problems aided its profitability. Significant production has also continued on the United States Air Force standard, the AN/ALR-46, a warning system used on almost every United States Air Force tactical fighter aircraft.

Typically, an electronic countermeasures system has a much shorter "life" than the airframe in which it is installed. A particular aircraft, then, might incorporate several generations of countermeasures systems during its period of service — each an improvement over its predecessor, and each having to perform a broader range of functions within the same limited amount of space.

Competing auccessfully in this market has required the ability to design more capability into a piece of equipment which is the same size as that already installed in the aircraft. Microelectronics was the original answer to that challenge, but now microprocessing devices meet the need. Using this new technology, Applied Technology will develop new generations of the ATAC minicomputer, each smaller than the previous unit and with greater capacity.

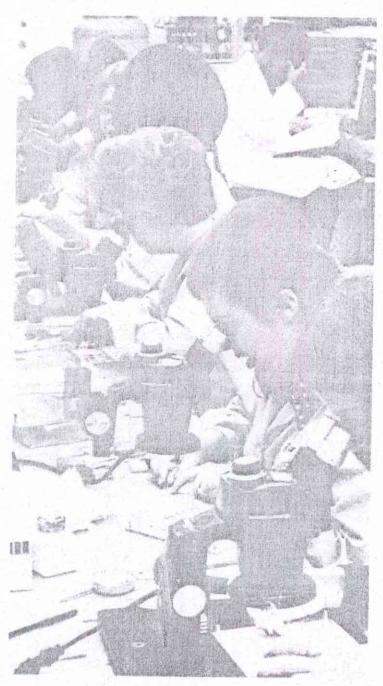
As radar warning systems came of age in the past decade, now an electrooptics warning capability is becoming a necessity for defense systems in
the decade ahead. Emerging new tracking systems use laser beams, which
means that protective detection systems must be able to detect and thwart
light aignals. Applied Technology is developing electro-optical detection
and signal processing systems to meet this need. Development contracts
were received recently for a combined system of this type.



John L. Grigsby (right), President, Applied Technology Division

For the coming year we see opportunities for developing and producing advanced systems for the U.S. Department of Defense, which continues to need new, updated electronic countermeasures systems. Applied Technology is also pursuing additional international markets for its Advanced Radar Warning System.

Future countermeasures equipment will be even more effective due to total integration through computer control. These "power management systems" will provide the aircrew with an automatic overall warning and protection system. The Compass Tie program was the first major contract for this type of system received by the division. Others are expected as we continue our product development efforts to develop power management systems that will be able to process and analyze both radar and laser tracking signals.



Products
Airborne Minicomputers
Electro-Optical Devices
Liquid Crystal Displays
Microslectronics
Radar Signal Simulators
Radar Warning Systems
Reconnaissance Receivers

## Applied Technology

4.9-1	(\$ in millions)		
	Revenues from Contracts	Income Contribution	
1975	\$28.6	\$1.2	
1974	28.0	1.5	
1973	40.4	2.1	
1972	42.5	3.2	
1971	32.2	2.5	

## **Optical Systems**

Since Itek's inception in 1957, its Optical Systems Division has been a leading designer and manufacturer of aerospace camera systems. Technological knowledge used in the photographic systems for reconnaissance became the basis of camera systems for space applications today, and the technology is still evolving. Requirements for rapid access to information and automated processing of this information is quickly making the use of electro-optical sensors more expedient than film in both reconnaissance and space exploration systems.

Itek's first major electro-optical program was for NASA's Viking Lander. Four of these cameras are today speeding toward the planet Mars aboard two spacecraft which were launched from Cape Canaveral in August and September of 1975. Each spacecraft carries two Itek electronic cameras which are capable of taking stereographic, black and white, color and infrared photography. After traveling through space for ten months and some 500 million miles, the first spacecraft is scheduled to land on Mars the beginning of this July, and the second craft during August. In all, the division manufactured 12 cameras in support of NASA's program to search for life on the Red Planet.

Since the Viking cameras were built, the division has further expanded its capabilities in electro-optics. We are now working on electro-optical programs in image acquisition, recording and display; in active optics; and in the processing of optical and radar imagery. The nucleus of the optical processing group was formed by employees who transferred from the Central Research Laboratories.

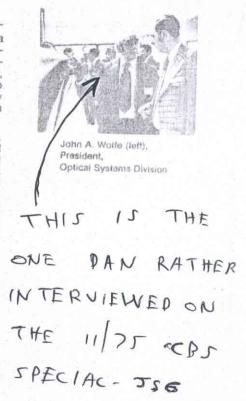
In electro-optical imaging, the division has established a total capability for the fabrication of modern solid state focal planes and a facility for testing and system simulation of electro-optical cameras and systems. R&D work on novel techniques of recording has resulted in advanced concepts for real time displays that take full advantage of the high resolutions of our camera systems.

In the area of active optics, the division has found a way to measure and correct the atmospheric distortion that has plagued astronomers for centuries. With the use of mirrors and computers, the system corrects distorted light from objects in space and instantly gives a clearer image. The use of such active electro-optics may soon open a new door to ultra-targe optical systems whose optical quality is improved by a factor of 10 or 20 or more.

Optical processing technology, based on the patented litek optical memory, is finding applications in a widening variety of image and signal processing applications for which digital processing technology is too slow to meet the requirements. This is an embryonic market, but it is expected to grow quite rapidly in the next few years and the division will enjoy a strong competitive position.

Optical Systems Division expects its orders for electro-optical systems to be two or three times greater in 1976 than in the previous year. However, these contracts will not immediately compensate for the overall reductions in government spending for our conventional optical systems.

itnic's business of building conventional photographic aerial camera systems for this country developed during last year into a growing international market. These large, high resolution systems have been given an official United States Air Force designation (KA-102A), and are attracting worldwide interest. One of the systems was delivered to the Republic of Korea early in 1976, where it was successfully flight tested. A photograph of the camera is on the front cover of this report. The division is also negotiating contracts overseas for photographic processing laboratories and multisensor and mapping camera systems.



The division has been involved with NASA in the preliminary definition and planning of an astronomical Space Telescope, which will be the highest quality telescope of its size ever built. Plans call for the telescope to have a primary mirror diameter of 2.4 meters (8 feet), which would increase the observable universe more than a hundred times. The Space Telescope will have better resolution and detect fainter objects than any ground based telescope, and will be able to look from the ultraviolet into the infrared spectra since there are no optical imperfections caused by atmospheric distortions as there are on earth. The Space Telescope would orbit the earth for ten years or more, and could be repaired in orbit or returned to earth as necessary for maintenance using the Space Shuttle. Although this program has been delayed, liek, along with other companies, will submit a proposal this year to design and build the mirror for the huge instrument.

The Optical Systems Division is on the threshold of a new phase of its development. It will see the realization of a major capability in electrooptics systems and an increase in the sale of its aerial camera product lines to foreign governments.



#### Products

Products
Active Optic Systems
Aenal Camera Systems
Electro-Optical Systems
Image Reconstruction Equipment
Optical Evaluation Equipment
Protographic Processing Equipment
Praction Lenses and Mirrors
Space Exploitation Systems
Telescopes Tatescopes Visual Information Systems

### Optical Systems

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	Revenues from Contracts	Income Contribution
1975	\$24.0	\$ .5
1974	28.2	1.8.
1973	34.3	2.6
1972	35.6	1.8
1971	31.6	1.5